Chapter

2

# Study Objectives and Methodology

## Study Objectives

The purpose of this study was to conduct a nationwide survey of FDIC-insured depository institutions to assess their efforts to serve unbanked and underbanked individuals and families. Section 7 of the Federal Deposit Insurance Reform Conforming Amendments Act of 2005 ("Reform Act") (Pub. L. 109-173) requires the FDIC to conduct ongoing surveys "on efforts by insured depository institutions to bring those individuals and families who have rarely, if ever, held a checking account, a savings account or other type of transaction or check cashing account at an insured depository institution into the conventional finance system."

The Reform Act further requires that the FDIC consider the following factors in conducting the survey: (1) the extent to which insured depository institutions promote financial education and financial literacy outreach; (2) the financial education efforts that appear to be the most effective in bringing unbanked individuals and families into the conventional finance system; (3) the efforts of insured institutions to convert unbanked money order, wire transfer, and international remittance customers into conventional account holders; (4) the cultural, language and identification issues as well as transactions costs that appear to most prevent unbanked individuals from establishing accounts; and (5) an estimate of the size and worth of the unbanked market in the United States.[5]

The FDIC retained Dove Consulting in 2007 to design and administer its initial survey effort related to the ongoing statutory requirement. The FDIC identified three broad objectives to address the specific requirements of the statutory mandate:

- Identify and quantify the extent to which insured depositories outreach, serve, and meet the banking needs of the unbanked and underbanked.
- Identify challenges affecting the ability of insured depository institutions to serve the unbanked and underbanked, including but not limited to cultural, language, identification issues, and spatial/location issues.
- Identify innovative efforts depositories use to serve the unbanked and underbanked, including community storefronts, small dollar loans, basic banking accounts, remittances, and other low-cost checking accounts, products and services used by the unbanked and underbanked.

[5] To address this last question, the FDIC is exploring the feasibility of conducting, along with the U.S. Bureau of the Census, the first national household survey to collect data on the numbers and demographic characteristics of unbanked and underbanked households, as well as the barriers they perceive when deciding how and where to conduct financial transactions.

## Survey Design

The survey effort designed by Dove Consulting consisted of a mail-in survey questionnaire administered to a sample of FDIC-insured institutions and a limited number of detailed case studies of surveyed banks identified as employing innovative ways of serving unbanked and/or underbanked consumers. The survey instrument included questions that focused on banks' financial education and outreach strategies; deposit, payment, and credit products offered to entry-level consumers; and other related topics (the survey instrument is included in Appendix A). The survey instrument was also designed to identify challenges insured institutions may face serving unbanked and underbanked customers.

A draft survey instrument was developed by Dove Consulting with input from the FDIC. Dove Consulting formally pilot-tested the survey instrument with nine FDIC-insured institutions in late 2007 to gather feedback about the questions and the process for gathering the data. The questionnaire was revised as necessary based on feedback from the pilot test. It was submitted by the FDIC to the Office of Management and Budget (OMB) on January 4, 2008, for approval under the Paperwork Reduction Act. The survey instrument was subsequently revised to address comments received during the OMB public comment period, and approval to administer the survey was granted to the FDIC by OMB on March 28, 2008 (OMB Form # 3064-0158).

Prior to survey administration, extensive efforts were made by the FDIC to build awareness of the study effort among the industry, to encourage banks to participate in the study, and to explain the value of participating in the research effort to their organization's staff. These efforts included communications with industry groups and publication of the study objectives and design on the FDIC website.

Guaranteeing the confidentiality of individual bank survey responses from the public and bank regulators was important to the banks as well as the FDIC. Under the terms of the FDIC's contract with Dove Consulting, no individual survey responses were returned to the FDIC or other bank agencies. The FDIC and other bank regulators therefore do not have access to individual survey responses and are not able to link any responses to individual banks. Dove Consulting collected all survey responses, certified that it had destroyed all individual bank identifying data or records, and delivered only aggregated survey results to the FDIC.

## Case Study Design

A limited number of case studies were developed to provide information about specific strategies that some financial institutions have implemented to expand their customer base and serve underbanked consumers. Case study banks were selected on the basis of a variety of different types of information, including industry research and bank survey questionnaire responses. The final selection of banks reflects a variety of strategies to serve the unbanked as well as types of FDIC-insured institutions.

The banks chosen for case studies were selected in a two-stage process. The first set of potential case study banks were identified by the FDIC based on industry research prior to survey administration. These banks were reviewed against certain "good standing" criteria which included regulatory ratings of 1 or 2 for compliance, Community Reinvestment Act, and composite safety and soundness.

The second set of potential case study banks was identified by Dove Consulting based on Dove Consulting's confidential review of banks' survey responses. Banks that revealed innovative and successful strategies to converting unbanked and underbanked individuals into the conventional banking mainstream in their survey responses and that met the FDIC good standing criteria were added to the potential case study bank list.

Potential case study banks were invited to voluntarily participate as case study banks by Dove Consulting. Dove Consulting contacted each potential bank by mail, seeking to obtain agreement to participate from a senior manager in each targeted organization. Banks that consented to be case study candidates were asked to complete the survey questionnaire and were interviewed at least once by Dove Consulting. Draft case studies were submitted to participating banks for their approval and consent.

## Population, Sample Frame, and Sample Design

### *Population of Interest*

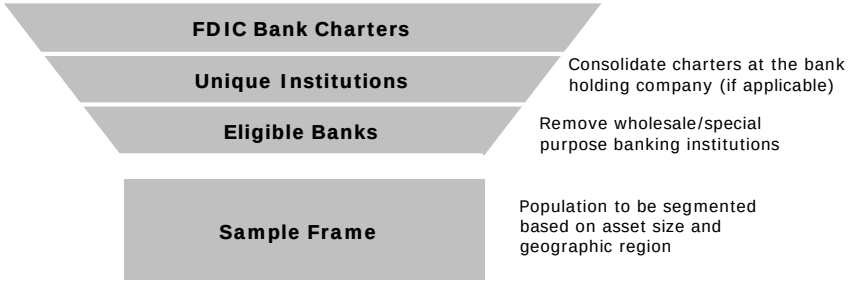
For the purposes of this study, the population was all federally insured banks and thrifts operating in the United States during the first quarter of the year 2007. Wholesale banks and special purpose banks that do not operate retail branches are not relevant for this study, and were excluded from the survey sample based on specialty charter and branch characteristics (i.e., assets per branch indicative of a money-center bank.)

### *Sample Frame*

The sample frame for the study was carefully considered to allow for collection of a statistically useful number of responses so that differences among potential geographic and financial institution size stratification schemes could be examined.

For this study, the sample frame was bank holding companies (or "unique institutions" in the FDIC database if they do not have a bank holding company). The sample frame included FDIC-insured financial institutions that operate retail bank offices. Screening criteria were used to determine the sample frame of U.S. banks with retail operations. (In subsequent discussions of the sampling frame, the sampling units are referred to as banks). Additionally, some banks were excluded from the study due to FDIC concerns of overburdening the institutions due to other concurrent FDIC studies.

**OM Figure 1. Sample Frame by Number of Banks**




The sample frame included 7,487 banks as shown in the table below by asset-size groupings.

**OM Figure 2. Sample Frame by Number of Banks**

| | # of Bank Charters | # of Banks |
|---|---|---|
| **Tier 1**<br>Top 25 banks by assets | 91 | 25 |
| **Tier 2**<br>Banks with $1 Billion or more in assets outside the Top 25 | 1,115 | 564 |
| **Tier 3**<br>Banks with less than $1 Billion in assets | 7,435 | 6,898 |
| **Sample Frame** | **8,641** | **7,487** |
| *Ineligible** | *9* | *5* |
| Total | 8,650 | 7,492 |

*Tier 1 excluded wholesale and special purpose banks.

### *Sample Size and Sample Allocation to Size Groups*

The target number of completed questionnaires was 865, based on Dove Consulting's goal of achieving a balance between cost and the anticipated need for computing valid survey estimates for banks by tiers (asset-size groups) and geographic areas (U.S. Census Bureau Divisions). This target sample size was based on full participation from the top 25 banks (Tier 1), along with approximately 20 Tier 2 banks per Census Division and more than 60 Tier 3 banks per Census Division. The allocation of the target number of completed questionnaires to the three asset-size strata, and the corresponding sampling rates (percentage of banks covered), are shown in Figure 3.

**OM Figure 3. Sample Frame – Planned Stratum Goals and Coverage**

| Strata | # of Unique Banks | Survey Goal (Completes) | Percentage of Banks Covered |
|---|---|---|---|
| **Tier 1 (Certainty)** Top 25 banks by assets | 25 | 25 | **100.0%** |
| **Tier 2 (Mid-Sized)** Banks with more than $1 billion in assets outside the Top 25 | 564 | 180 | **31.9%** |
| **Tier 3 (Under $1 Billon)** Banks with less than $1 billion in assets | 6,898 | 660 | **9.6%** |
| **Total** | **7,487** | **865** | **11.6%** |

Note that the sample allocation to size groups included an oversampling of larger banks. This improved sampling efficiency because of the disproportionate influence of the largest banks on availability of retail banking services. As shown in the above table, the target sampling rate was 100 percent for Tier 1 banks, 32 percent for Tier 2 banks, and 10 percent for Tier 3 banks.

Based on these target numbers of completed interviews and the response rate goals (100 percent for Tier 1 and a two-thirds response rate goal for Tiers 2 and 3), a stratified random sample of 1,264 banks was selected from Tiers 2 and 3, less two that were excluded due to the burden of another FDIC study. Including the 25 banks in the Tier 1 group, the total sample size was 1,287 banks (25 + 1,264 – 2).

### *Stratified Sample Design*

The sample of 1,287 banks was selected as a stratified random sample from the sample frame of 7,487 banks. The primary strata were defined by the three bank size groups: top 25 (certainties, Tier 1), banks with total assets of $1 billion or more (Tier 2), and banks with less than $1 billion in assets (Tier 3). Based on the target numbers of completed questionnaires by size groups and the response rate goals, the 1,287 sample banks were allocated to the three size groups as follows: 25 to Tier 1, 268 to Tier 2, and 994 to Tier 3. The corresponding sampling rates were 100 percent for Tier 1, 47.5 percent for Tier 2, and 14.4 percent for Tier 3.

The next level of stratification was the nine Census Divisions. Within Tiers 2 and 3, the sample was allocated proportionally to the nine Census Divisions. Therefore, within each tier, the selection probability of banks across Census Divisions was constant (except for minor variations due to the need to round off sample sizes to integers). The sample allocation to strata is shown in Figure 4.

**OM Figure 4. Sample Stratification by Tier and Census Division**

| | Tier 1 | Tier 2 | Tier 3 |
|---|---|---|---|
| New England | 1 | 14 | 49 |
| Middle Atlantic | 6 | 39 | 66 |
| South Atlantic | 4 | 42 | 129 |
| East South Central | 2 | 16 | 91 |
| West South Central | 0 | 29 | 157 |
| East North Central | 8 | 44 | 202 |
| West North Central | 1 | 26 | 187 |
| Mountain | 1 | 17 | 58 |
| Pacific | 2 | 41 | 55 |
| **Total** | **25** | **268** | **994** |

The states in each of the nine Census Divisions are:

**OM Figure 5. Listing of States by Census Division**

| | |
|---|---|
| New England: | Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island |
| Middle Atlantic: | New Jersey, New York, Pennsylvania |
| South Atlantic: | Maryland; Washington, D.C.; Delaware; West Virginia; Virginia; North Carolina; South Carolina; Georgia; Florida |
| East South Central: | Kentucky, Tennessee, Alabama, Mississippi |
| West South Central: | Oklahoma, Arkansas, Texas, Louisiana |
| East North Central: | Wisconsin, Michigan, Ohio, Indiana, Illinois |
| West North Central: | North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa, Minnesota |
| Mountain: | Idaho, Montana, Wyoming, Colorado, Utah, Nevada, Arizona, New Mexico |
| Pacific: | Washington, Oregon, California, Alaska, Hawaii, Guam |

## Data Collection

A survey package was mailed to each sample bank on April 12, 2008. The packages included a personalized cover letter, instructions, the survey form, and a Business Reply Envelope for returning the survey (see Appendix A for the survey form and sample invitation letter). The survey package also included instructions about how to submit the completed questionnaires electronically. These instructions included information on how to download the MS-Word version of the survey from the FDIC Web site or via email.

Data collection was performed at the highest organizational level of the bank within the United States. Specifically, the sampling unit was at the bank holding company level, as reflective of legacy arrangements. The respondent sought was the bank officer responsible for retail bank operations. For U.S. owned holding companies, Dove Consulting treated each of the top 25 holding companies as a single unit and asked the bank leadership to specify contacts for the study.

It was necessary to collect multiple responses from some banks if they had different or legacy procedures at retail banks within their bank holding company. Specifically, Dove Consulting requested the largest banks to complete separate surveys if their policies differed by charter. For the one bank that submitted multiple survey forms, the mean of its item responses were incorporated in the dataset.

Extensive follow-up by telephone, email, and mail was conducted by Dove Consulting and the FDIC to encourage strong bank participation and resolve questions. In this regard, Dove Consulting placed over 2,000 follow-up telephone calls.

Once the survey data were collected and entered into a database, Dove Consulting examined the data for consistency.

## Survey Response

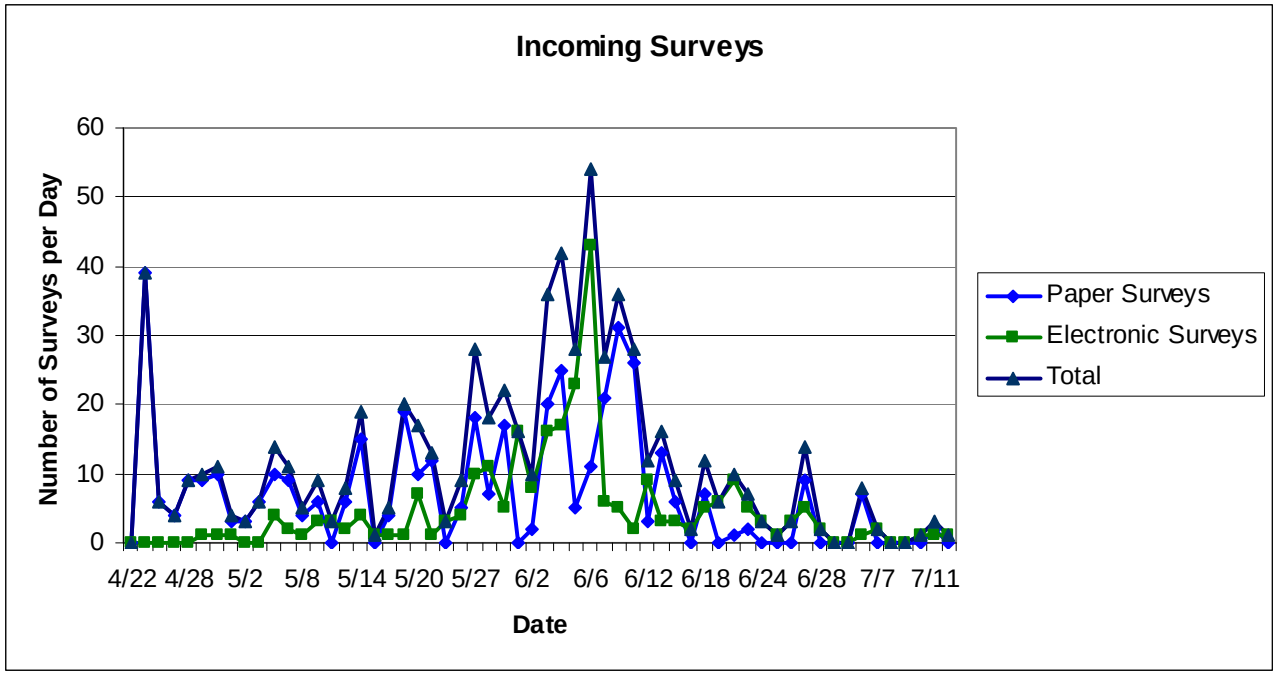
Survey collection ended on July 11, 2008. Survey response rates, the mix between paper and electronic submission, and timing appear in Figures 6 and 7. The overall survey response rate was 53.4 percent, reflecting 685 completed surveys. After adjusting for disqualifications (frame errors), replacements and bank consolidations/mergers, the adjusted response rate is 53.7 percent. Figure 8 breaks down the 685 responses by Tier and Division.

**OM Figure 6. Survey Response Rates**

| | Sample Frame Size | (A) Surveys Sent (April 12th) | (B) Replacement Banks | (C) Sample Size | (D) Banks Disqualified | (E) Surveys Received | (F) Response Rate (E/A) | (G) Adjusted Response Rate (E/(C-D)) |
|---|---|---|---|---|---|---|---|---|
| **Tier 1 (Top 25 banks)** | 25 | 25 | 0 | 25 | 0 | 24 | 96.0% | 96.0% |
| **Tier 2 (Assets over $1 billion, not Top 25)** | 564 | 268 | 0 | 268 | 6 | 159 | 59.3% | 60.7% |
| **Tier 3 (Assets under $1 billion)** | 6,898 | 990 | 4 | 994 | 5 | 502 | 50.6% | 50.8% |
| **Total** | **7,487** | **1,283** | **4** | **1,287** | **11** | **685** | **53.4%** | **53.7%** |

For the 685 bank responses, 422 came in by paper (including faxes) and 263 were received by email. The mix and number of daily incoming surveys of responses are shown below:

**OM Figure 7. Survey Response Mix and Timing**



**OM Figure 8. Responding Banks by Tier and Region**

| Region | | Tier 1 | Tier 2 | Tier 3 | Total |
|---|---|---|---|---|---|
| New England | **Count** | **1** | **6** | **31** | **38** |
| | *% within Region* | *2.6%* | *15.8%* | *81.6%* | *100.0%* |
| | *% within New Tier* | *4.2%* | *3.8%* | *6.2%* | *5.5%* |
| | *% of Total* | *0.1%* | *0.9%* | *4.5%* | *5.5%* |
| Mid-Atlantic | **Count** | **5** | **24** | **36** | **65** |
| | *% within Region* | *7.7%* | *36.9%* | *55.4%* | *100.0%* |
| | *% within New Tier* | *20.8%* | *15.1%* | *7.2%* | *9.5%* |
| | *% of Total* | *0.7%* | *3.5%* | *5.3%* | *9.5%* |
| South Atlantic | **Count** | **4** | **18** | **58** | **80** |
| | *% within Region* | *5.0%* | *22.5%* | *72.5%* | *100.0%* |
| | *% within New Tier* | *16.7%* | *11.3%* | *11.6%* | *11.7%* |
| | *% of Total* | *0.6%* | *2.6%* | *8.5%* | *11.7%* |
| East South Central | **Count** | **2** | **11** | **47** | **60** |
| | *% within Region* | *3.3%* | *18.3%* | *78.3%* | *100.0%* |
| | *% within New Tier* | *8.3%* | *6.9%* | *9.4%* | *8.8%* |
| | *% of Total* | *0.3%* | *1.6%* | *6.9%* | *8.8%* |
| West South Central | **Count** | **0** | **24** | **80** | **104** |
| | *% within Region* | *0.0%* | *23.1%* | *76.9%* | *100.0%* |
| | *% within New Tier* | *0.0%* | *15.1%* | *15.9%* | *15.2%* |
| | *% of Total* | *0.0%* | *3.5%* | *11.7%* | *15.2%* |
| East North Central | **Count** | **8** | **30** | **88** | **126** |
| | *% within Region* | *6.3%* | *23.8%* | *69.8%* | *100.0%* |
| | *% within New Tier* | *33.3%* | *18.9%* | *17.5%* | *18.4%* |
| | *% of Total* | *1.2%* | *4.4%* | *12.8%* | *18.4%* |
| West North Central | **Count** | **1** | **12** | **100** | **113** |
| | *% within Region* | *.9%* | *10.6%* | *88.5%* | *100.0%* |
| | *% within New Tier* | *4.2%* | *7.5%* | *19.9%* | *16.5%* |
| | *% of Total* | *0.1%* | *1.8%* | *14.6%* | *16.5%* |
| Mountain | **Count** | **1** | **8** | **35** | **44** |
| | *% within Region* | *2.3%* | *18.2%* | *79.5%* | *100.0%* |
| | *% within New Tier* | *4.2%* | *5.0%* | *7.0%* | *6.4%* |
| | *% of Total* | *.1%* | *1.2%* | *5.1%* | *6.4%* |
| Pacific | **Count** | **2** | **26** | **27** | **55** |
| | *% within Region* | *3.6%* | *47.3%* | *49.1%* | *100.0%* |
| | *% within New Tier* | *8.3%* | *16.4%* | *5.4%* | *8.0%* |
| | *% of Total* | *0.3%* | *3.8%* | *3.9%* | *8.0%* |
| **Total** | **Count** | **24** | **159** | **502** | **685** |
| | *% within Region* | *3.5%* | *23.2%* | *73.3%* | *100.0%* |

## Derivation of Respondent Weights and Survey Estimates

For the purpose of making industry-wide estimates from the 685 completed survey questionnaires received from banks, appropriate respondent weights were derived that were based on bank selection probabilities and survey response rates. These weights were computed as the product of a base weight (inverse of the selection probability) and a nonresponse adjustment factor based on the assumption that nonrespondents were "missing at random" within asset-size groups. Survey estimates were computed using these respondent weights. To the extent that the "missing at random" assumption is valid, the survey estimates of population statistics are unbiased.

Following are the details of the derivation of respondent weights and survey estimates.

### *Base Weights*

The base weight for a respondent is the reciprocal of the respondent's selection probability. The sample design for the survey of banks was a stratified random sample where the selection probabilities varied across the three size groups (major strata) but were constant within a size group. The selection probabilities for all units within a stratum were equal to the sampling rate for the stratum. (As noted previously, although we also stratified by Census Division, the selection probability of banks in a given stratum/tier was constant across Division, aside from minor variations due to rounding.)

Let *h* denote the stratum (size group). If we select $n_h$ (the sample size for stratum *h*) out of the $N_h$ (the population size for stratum *h*) banks in stratum *h,* then the selection probability for banks in stratum *h* is the following:

$$\pi_h = n_h / N_h .$$

Then, the base weight (or design weight) assigned to each respondent bank in stratum *h* was computed as follows:

$$w_h = 1/\pi_h .$$

The base weights for the three major strata (tiers) are shown in Figure 9.

**OM Figure 9. Base Weights**

| Let *h* denote the size group (tier) | **Tier 1** | **Tier 2** | **Tier 3** |
|---|---|---|---|
| Selection probability $\pi_h$ | **1.000** | **0.475** | **0.144** |
| Base weight (or design weight), $w_h$, assigned to the respondent banks in each tier | **1.00** | **2.104** | **6.940** |

### *Nonresponse Weight Adjustment*

The base weights were adjusted to account for the nonresponding banks. This weight adjustment was applied within each stratum, based on the assumption that sample banks will be "missing at random" within strata, or at least that the survey variables for a nonresponding bank will be more like those of responding banks in the same stratum than those in other strata.

As before, $n_h$ represents the number of banks that were sampled from stratum *h*. The number of those sampled banks that responded to the survey is denoted as $r_h$. Subsequently some of the $n_h$ sample cases were determined to be ineligible (or out of scope) for the survey. The nonresponse weight adjustment was calculated as the ratio of the eligible number of sampled banks (both respondents and nonrespondents), denoted $n_{he}$, in the stratum to the number of banks in the stratum that responded to the survey. Specifically, the weight adjustment due to the nonresponding banks within stratum *h*, $A_h^{(nr)}$, was computed as follows:

$$A_h^{(nr)} = n_{he} \Big/ r_h .$$

To obtain the final weights, the base weight for stratum *h*, $w_h$, was multiplied by the nonresponse adjustment factor, $A_h^{(nr)}$. The stratum level design weight adjusted for nonresponse (the final weight) was computed as follows:

$$w_h^* = A_h^{(nr)} w_h .$$

The above final weight was assigned to all banks belonging to stratum *h* for which survey data were obtained.

**OM Figure 10. Response Adjusted Base Weights**

| Let *h* denote the stratum (tier) | **Tier 1** | **Tier 2** | **Tier 3** |
|---|---|---|---|
| Base weight (or design weight) | 1.00 | 2.104 | 6.940 |
| Sample Size ($n_h$ Banks) | 25 | 268 | 994 |
| Eligible Sample Size ($n_{he}$ Banks) | 25 | 262 (268 - 6 ineligible) | 989 (994 - 5 ineligible) |
| Respondents ($r_h$ banks) | 24 | 159 | 502 |
| Nonresponse weight adjustment, $A_h^{(nr)}$ | 1.042 | 1.648 | 1.970 |
| **Final weight (Base weight x Nonresponse weight adjustment)** | **1.042** | **3.468** | **13.672** |

### *Survey Estimates*

Survey estimates of population totals or means/percentages were computed using the weights described in the previous section. In particular, if $y_{hi}$ represents the response to a survey question provided by respondent *i* in stratum (tier) *h*, the estimated population total, $\hat{Y}$, for that question would be computed as follows:

$$\hat{Y} = \sum_{h=1}^{3} \sum_{i=1}^{r_h} w_h \, y_{hi} \, .$$

An example of an estimated total for the survey would be the estimated number of automated teller machines (ATMs) that banks have that are located in low- and moderate-income (LMI) Census tracts.

However, many of the estimated totals from the survey are estimated bank counts, like the estimated number of banks that perceive that there are unbanked or underbanked populations in their market area. In that case, the $y_{hi}$ variable is a 0-1 variable, which takes on the value of 1 if the respondent answered yes to this question, and zero otherwise. The estimate would then be the sum of the weights of all respondents that answered yes to the question.

A survey mean per bank, $\overline{Y}$, in the universe would be estimated as follows:

$$\hat{\overline{Y}} = \frac{\hat{Y}}{\sum_{h=1}^{3} \sum_{i=1}^{r_h} w_h} .$$

The estimated mean is the estimated total (weighted responses for the survey question) divided by the sum of the weights of all of the respondents who answered the question.

Many of the survey items are yes/no questions, such as whether the bank participates in education or outreach efforts that could bring unbanked or underbanked individuals into the conventional banking system. In those cases, the above formula for estimating a population mean was used to estimate a population proportion (percent) where the y variable is a 0-1 variable. For such an application, the estimated total was computed as the sum of the weights of all respondents that answered yes to the question (as discussed above as an estimated count). The denominator was computed as the sum of the weights for all respondents who answered the question. Therefore, an estimate of the population percent who would answer yes to a specific question was calculated as the sum of the weights of all respondents that answered yes to the question divided by the sum of the weights of all respondents who answered the question.

The same formulas were used for estimating totals, means, and percents for population subgroups, where the summations were taken over the subgroup respondents. For example, the proportion of banks in the Middle Atlantic Division that use credit report scores as part of the screening process for new checking accounts was estimated as the ratio of the sum of the weights of responding banks in the Middle Atlantic Division that answered yes to that survey question divided by the sum of the weights of all respondents in the Middle Atlantic Division that answered that question.

### Reliability of the Estimates

Because estimates are based on sample data, they differ from figures that would have been obtained from complete enumeration of the population using the same instruments. Results are subject to both sampling and nonsampling errors. Nonsampling errors include biases due to inaccurate reporting, processing, and measurement, as well as errors due to nonresponse. These types of errors cannot be measured readily. However, to the extent possible, each error of this type has been minimized through the procedures used for data collection, editing, quality control, and nonresponse adjustment.

The sampling error of an estimate is the error that occurs solely because population estimates are generated from only a portion (sample) of the population. These types of errors can be estimated from the sample results. The most common measure of sampling error is the standard error of an estimate. Generally, the size of the standard error is inversely proportional to the square root of the number of observations in the sample. Thus, as the sample size increases, the standard error decreases. Standard error estimates for this survey could be derived for estimates computed for the full population or for population subgroups, assuming that respondents are random samples by strata (i.e., that the "missing at random" assumption mentioned earlier is reasonable). These standard error estimates could be used to test significant differences between various pairs of subgroups. However, due to the sample size limitations, Census Division comparisons may not be very meaningful.

### Research Limitations

Due to the classification and reporting process used, readers should be careful in the inferences drawn from segments other than bank size (tier). This is important as the region (Census Division) and rural/urban segmentations are based on the location of the responding bank's headquarters. Therefore, some results might not be meaningful. For example, in analyzing the distribution of ATMs per region, a large bank with operations that span multiple regions would have all the ATMs mapped to the headquarters region.

Chapter

3

# Participating Bank Characteristics and Retail Bank Information

This chapter provides information about the characteristics of the banks that responded to the survey. Key characteristics include:

- Bank Assets
- Deposit Branches
- Consumer Accounts and Cards
- ATMs Deployed

## Summary

The data collected for this survey on banks' efforts to serve the unbanked and underbanked are representative of the U.S. banking industry in the year 2008. The survey's stratified design and the excellent participation by banks, specifically the largest banks from the Tier 1 (top 25) and Tier 2 (over $1 billion in assets), have permitted this study to gather an unparalleled and highly representative dataset for analysis. Collectively, the banks that responded to the survey had over $8.3 trillion in assets (which represents approximately 70 percent of the total assets for commercial banks in the United States) at the time that the sample was drawn in 2007. Responding banks operated 43,761 deposit branches, which represent about half of the bank offices at the time the sample was drawn.

**Figure 1. Bank Size (Assets)**

Assets (in 000s) as of June 30, 2007

| | | Frequency |
|---|---|---|
| N | Valid | 683 |
| | Missing | 2 |
| Mean | | $11,961,677.89 |
| Median | | $209,990.00 |

## Consumer Accounts and Cards

**Question I A. Please provide the following information related to consumer accounts/cards as of December 31, 2007:**

___ **Number of conventional transaction accounts (e.g., checking, DDA, NOW, MMDA)**

___ **Number of non-transaction savings accounts**

___ **Number of entry deposit accounts* designed for individuals not qualified for conventional accounts**

___ **Number of debit cards issued and active**

___ **Number of prepaid cards issued and active**

___ **Number of credit cards issued and outstanding**

An average bank issued 8,922 credit cards, 3,790 prepaid cards, and 16,245 debit cards at the time of the survey. Additionally, it had 28,313 conventional transaction accounts, 17,745 savings accounts, and 318 entry deposit accounts for individuals not qualified for conventional accounts.

**QIA. Figure 1. Overall: Account Statistics**

| | | Conventional transaction accounts | Non-transaction savings accounts | Entry deposit accounts for individuals not qualified for conventional accounts | Debit Cards | Prepaid Cards | Credit Cards |
|---|---|---|---|---|---|---|---|
| N | Valid | 669 | 666 | 668 | 670 | 669 | 669 |
| | Missing | 16 | 19 | 17 | 15 | 16 | 16 |
| Weighted Mean | | 28,313.31 | 17,745.32 | 317.59 | 16,245.19 | 3,789.74 | 8,922.06 |
| Median | | 4,026.00 | 2,224.00 | .00 | 2,000.00 | .00 | .00 |

There is a difference between tiers for all types of consumer accounts and cards. Tier 1 banks have a larger number of credit cards (mean of 2.58 million) than Tier 2 (mean of 4,761) and Tier 3 (mean of 478).

**QIA. Figure 2. Tier 1: Account Statistics**

| | | Conventional transaction accounts | Non-transaction savings accounts | Entry deposit accounts for individuals not qualified for conventional accounts | Debit Cards | Prepaid Cards | Credit Cards |
|---|---|---|---|---|---|---|---|
| N | Valid | 24 | 24 | 23 | 23 | 22 | 23 |
| | Missing | 1 | 1 | 2 | 2 | 3 | 2 |
| Mean | | 5,139,718.87 | 2,997,061.52 | 22,163.86 | 2,679,187.36 | 1,233,532.67 | 2,579,975.91 |
| Median | | 2,710,000.00 | 926,633.00 | 555.50 | 1,129,422.00 | .00 | 137,500.00 |

**QIA. Figure 3. Tier 2: Account Statistics**

| | | Conventional transaction accounts | Non-transaction savings accounts | Entry deposit accounts for individuals not qualified for conventional accounts | Debit Cards | Prepaid Cards | Credit Cards |
|---|---|---|---|---|---|---|---|
| N | Valid | 541 | 538 | 541 | 541 | 541 | 541 |
| | Missing | 10 | 14 | 10 | 10 | 10 | 10 |
| Mean | | 77,616.02 | 48,159.99 | 2,246.53 | 61,806.69 | 859.64 | 4,761.20 |
| Median | | 47,578.00 | 26,250.00 | .00 | 31,251.00 | .00 | .00 |

Tier 3 banks issue relatively few prepaid cards and credit cards. The mean number of prepaid cards issued is 25, and 478 for credit cards. The median and mode are 0 for both types of cards.

**QIA. Figure 4. Tier 3: Account Statistics**

| | | Conventional transaction accounts | Non-transaction savings accounts | Entry deposit accounts for individuals not qualified for conventional accounts | Debit Cards | Prepaid Cards | Credit Cards |
|---|---|---|---|---|---|---|---|
| N | Valid | 6699 | 6672 | 6699 | 6727 | 6727 | 6713 |
| | Missing | 164 | 191 | 164 | 137 | 137 | 150 |
| Mean | | 6,046.27 | 4,593.01 | 87.06 | 3,505.61 | 25.00 | 477.52 |
| Median | | 3,705.50 | 2,073.50 | .00 | 1,748.50 | .00 | .00 |

There are few differences between regions for all types of consumer accounts and cards.

There are differences between urban and rural banks for the number of conventional accounts, non-transaction savings accounts, and debit cards. Urban banks have a higher mean and median than rural banks across all accounts and cards.

**QIA. Figure 5. Urban: Account Statistics**

| | | Conventional transaction accounts | Non-transaction savings accounts | Entry deposit accounts for individuals not qualified for conventional accounts | Debit Cards | Prepaid Cards | Credit Cards |
|---|---|---|---|---|---|---|---|
| N | Valid | 3346 | 3342 | 3345 | 3359 | 3358 | 3348 |
| | Missing | 134 | 138 | 136 | 122 | 123 | 132 |
| Mean | | 53,338.95 | 33,529.18 | 521.28 | 30,026.64 | 8,200.42 | 18,971.05 |
| Median | | 5,220.00 | 2,924.00 | .00 | 2,492.00 | .00 | .00 |

**QIA. Figure 6. Rural: Account Statistics**

| | | Conventional transaction accounts | Non-transaction savings accounts | Entry deposit accounts for individuals not qualified for conventional accounts | Debit Cards | Prepaid Cards | Credit Cards |
|---|---|---|---|---|---|---|---|
| N | Valid | 3918 | 3891 | 3918 | 3932 | 3932 | 3929 |
| | Missing | 41 | 68 | 41 | 27 | 27 | 31 |
| Mean | | 6,943.49 | 4,186.57 | 143.72 | 4,473.64 | 23.49 | 357.14 |
| Median | | 3,661.00 | 2,092.00 | .00 | 1,604.00 | .00 | .00 |

## ATMs Deployed

**Question I B. Number of ATMs operated by your bank. Please indicate approximate numbers of ATMs by location and functionality:**

| Location | Number | | Functionality | Number |
|---|---|---|---|---|
| Inside LMI tracts…… | ___ | | Basic cash dispense only…… | ___ |
| Outside LMI tracts…. | ___ | | Basic cash dispense and deposit acceptance… | ___ |
| | | | Advanced functionality with bill payment and/or automated money order and/or prepaid card…. | ___ |
| Total ATMs | ___ | = | Total ATMs | ___ |

The average bank has a total of 20 ATMs, with about six located inside LMI tracts.

**QIB. Figure 1. ATM Statistics**

| | | ATMS located inside LMI tracts | ATMS located outside LMI tracts | Basic cash dispense ATMs | Basic cash dispense and deposit acceptance ATMs | Advanced functionality ATMs | Total ATMs |
|---|---|---|---|---|---|---|---|
| N | Valid | 641 | 642 | 670 | 667 | 663 | 677 |
| | Missing | 44 | 43 | 15 | 18 | 22 | 8 |
| Sum | | 21,325 | 27,780 | 59,681 | 27,780 | 1,672 | 85,164 |
| Weighted Mean | | 5.95 | 8.11 | 14.48 | 8.11 | .32 | 20.36 |
| Weighted Median | | 1.00 | 2.00 | 2.00 | 2.00 | .00 | 4.00 |

There are little differences between regions for the number of ATMs across all ATM types.

There is a difference between tiers for the number of ATMs across all types of ATMs. In every case, Tier 1 banks have deployed more ATMs than Tier 2 and Tier 3 banks. The mean total number of ATMs for Tier 1 is 3,132, compared with 65 in Tier 2 and 6 in Tier 3.

In Tier 1, the mean number of ATMs located inside LMI tracts (777) differs from Tier 2 (16) and Tier 3 (2).

QIB. Figure 2. Tier 1: ATM Statistics

| | | ATMS located inside LMI tracts | ATMS located outside LMI tracts | Basic cash dispense ATMs | Basic cash dispense and deposit acceptance ATMs | Advanced functionality ATMs | Total ATMs |
|---|---|---|---|---|---|---|---|
| N | Valid | 24 | 23 | 24 | 24 | 20 | 24 |
| | Missing | 1 | 2 | 1 | 1 | 5 | 1 |
| Mean | | 777.26 | 2,292.95 | 945.13 | 2,151.70 | 76.32 | 3,131.83 |
| Median | | 473.00 | 1,373.00 | 559.00 | 1,285.00 | .00 | 2,095.00 |

**QIB. Figure 3. Tier 2: ATM Statistics**

| | | ATMS located inside LMI tracts | ATMS located outside LMI tracts | Basic cash dispense ATMs | Basic cash dispense and deposit acceptance ATMs | Advanced functionality ATMs | Total ATMs |
|---|---|---|---|---|---|---|---|
| N | Valid | 538 | 538 | 544 | 544 | 541 | 551 |
| | Missing | 14 | 14 | 7 | 7 | 10 | 0 |
| Mean | | 15.66 | 49.73 | 28.89 | 36.82 | 1.40 | 64.77 |
| Median | | 8.00 | 31.00 | 9.00 | 24.00 | .00 | 41.00 |

**QIB. Figure 4. Tier 3: ATM Statistics**

| | | ATMS located inside LMI tracts | ATMS located outside LMI tracts | Basic cash dispense ATMs | Basic cash dispense and deposit acceptance ATMs | Advanced functionality ATMs | Total ATMs |
|---|---|---|---|---|---|---|---|
| N | Valid | 6330 | 6357 | 6699 | 6658 | 6672 | 6768 |
| | Missing | 533 | 506 | 164 | 205 | 191 | 96 |
| Mean | | 2.21 | 3.29 | 3.07 | 2.78 | .01 | 5.72 |
| Median | | 1.00 | 1.00 | 1.00 | 1.00 | .00 | 4.00 |

There are differences between urban and rural banks for the number of ATMs inside LMI tracts, basic cash dispense ATMs, ATMs outside LMI tracts, basic cash dispense and deposit acceptance ATMs, and total number of ATMs. The mean for urban banks is significantly higher for these types of ATMs than for rural banks.

There is little difference between urban and rural banks for advance functionality machines.

**QIB. Figure 5. Rural: ATM Statistics**

| | | ATMS located inside LMI tracts | ATMS located outside LMI tracts | Basic cash dispense ATMs | Basic cash dispense and deposit acceptance ATMs | Advanced functionality ATMs | Total ATMs |
|---|---|---|---|---|---|---|---|
| N | Valid | 3641 | 3641 | 3641 | 3877 | 3877 | 3932 |
| | Missing | 318 | 318 | 318 | 82 | 82 | 27 |
| Mean | | 2.69 | 3.63 | 4.10 | 2.74 | .07 | 6.75 |
| Median | | 1.00 | 1.00 | 2.00 | .00 | .00 | 3.00 |

**QIB. Figure 6. Urban: ATM Statistics**

| | | ATMS located inside LMI tracts | ATMS located outside LMI tracts | Basic cash dispense ATMs | Basic cash dispense and deposit acceptance ATMs | Advanced functionality ATMs | Total ATMs |
|---|---|---|---|---|---|---|---|
| N | Valid | 3250 | 3277 | 3363 | 3349 | 3355 | 3411 |
| | Missing | 230 | 204 | 117 | 131 | 125 | 69 |
| Mean | | 9.60 | 26.54 | 12.77 | 23.73 | .61 | 36.05 |
| Median | | 1.00 | 3.00 | 1.00 | 3.00 | .00 | 5.00 |