## B. <u>STATISTICAL METHODS</u>

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

The universe of potential participants in the FDIC overdraft protection study includes all U.S. banks for which the FDIC is the primary supervisor. As of September 30, 2006, there were 5,237 FDIC-supervised banks, a number which includes both state chartered non-member commercial banks as well as state chartered savings banks.

The FDIC has designed sampling procedures to (a) minimize the reporting burden for these banks, (b) maximize the accuracy of the data being collected, and (c) maximize institution response rates. To accomplish these important objectives, the FDIC must accept some potential for sampling bias. We believe that the costs associated with this potential sampling bias are small, and that they are more than justified by the substantial benefits generated by this approach.

The FDIC field staff will administer the <u>questionnaire</u>. This will (a) reduce reporting burden by avoiding additional meetings with the banks; (b) increase the accuracy of survey responses by having an FDIC expert on-site complete the survey questionnaires; and (c) increase survey response rates. There are approximately 1,800 on-site visits regularly scheduled during any six-month period, and we will administer the survey to a stratified random sample of 500 banks during those six months. The strata will primarily be based on bank size and branch location (urban versus rural).

The FDIC will administer the <u>micro-data collection</u> to a non-random subsample of these 500 banks. We will proceed in two stages: First, we will identify up to 100 banks of different size, location and programs offered that can utilize standard programming software that is being researched/developed. The FDIC expects to receive useable data from most of these banks. Second, if the distribution of these banks (in terms of the bank size and location) is not representative of the 500 banks sampled, then the FDIC will identify additional banks to make this non-random sample more representative of the 500 randomly chosen banks to which we administered the written survey, not to exceed 100 banks.

	number of banks	expected response rate
universe of FDIC-supervised	5,327	
banks	3,327	
banks with exams scheduled	approximately 1 900	
during a six-month window	approximately 1,800	
random sample of banks		
administered the written	500	over 95 percent
survey		
non-random sample of banks		
administered the micro-data	approximately 100	about 67 percent
download		

- 2. <u>Procedures for the collection of information.</u>
  - a) Statistical methodology for stratification and sample selection

The FDIC will stratify the random sample of 500 banks by three asset sizes (assets less than \$250 million; assets between \$250 million and \$1 billion; and assets over \$1 billion) in proportion to the distribution of assets in the general population of FDIC-supervised banks.

The FDIC will also stratify our random sample of 500 banks by two location groups (banks in urban markets; banks in rural markets) in proportion to the distribution of banks in the general population of FDIC-supervised banks.

b) Estimation procedure

Regarding statistical inference, the 500-bank random sample (survey questionnaire data) has two potential limitations. First, the banks scheduled for on-site visits during any given six-month window may not be a truly random set of banks, and may reflect the economic and financial conditions prevailing for some period leading up to this six-month window. However, we believe that any bias resulting from this will not be significant. Second, because we only sample from FDIC-supervised banks, we cannot draw strong inferences from these data about banks primarily supervised by other agencies, such as national banks and state-chartered member banks.

Our smaller -- up to 100-bank sub-sample (micro-data downloads) -- is a non-random sample, and as such it will not be possible to draw statistical inferences from any bank-level analysis using these data. However, we expect that these downloads will provide very useful information about consumer usage and fee reliance on the various overdraft protection programs. The FDIC will state each of these potential limitations clearly in all presentations of our analysis using these data.

c) Degree of accuracy needed for the purpose described in the justification

The FDIC is taking steps to ensure that the degree of accuracy for both the on-site survey questionnaire and the micro-data submission is high. These steps include training key personnel in each FDIC Region so that there is a cadre of FDIC staff well-versed in the survey to coach field personnel; provide just-in-time training to FDIC staff assigned to conduct the on-site surveys; hold regular discussions with FDIC personnel, bankers, and IT servicers to answer any questions during the survey; and work in advance of conducting the study to develop standard base programming that provides consistent and accurate information.

Since the sample of 500 banks is being taken from the scheduled examination cycle (in order to reduce burden on the banks and enhance consistency in the responses), it is not a truly random sample from all 5,237 FDIC-supervised banks. The FDIC will make

unbiased estimates for the sub-universe of the approximately 1,800 banks that will be examined during the six-month period. For those inferences, the FDIC will be able to estimate characteristics to within  $\pm$  5 percentage points (or less) with 95% confidence. The stratified random sample of 500 banks, assuming at least 90% response rate, will allow that degree of accuracy.

Regarding the overall value of the sample results, the FDIC believes that a sample of 500 banks will provide a reliable number of banks for each of the six sampling strata.

d) Unusual problems requiring specialized sampling procedures

We do not anticipate any unusual problems requiring specialized sampling procedures beyond the techniques described above.

e) Any use of periodic (less frequent than annual) data collection cycles to reduce burden.

The collection of survey responses and data is intended to be a one-time effort.

3. <u>Methods to maximize response rates and to deal with issues of non-response</u>.

The FDIC intends to have the field staff administer the 500 surveys and is working to develop standard computer programs to keep data-gathering accurate and consistent with the micro-data submissions. The FDIC plans to conduct periodic telephone conferences with both FDIC field staff and bankers to help disseminate information on how to gather and submit the requested information. The pilot test in 2006 of nine FDIC-supervised banks helped refine the request and identify areas that were particularly burdensome. The FDIC conducted conference calls with FDIC field staff and bank staff during this test. The pilot test helped clarify and refine the language of the program information requested and helped select a smaller set of variables for our data request. Based on the pilot survey, the FDIC decided to pursue development of standard computer programs for the micro-data submission to reduce the burden and to improve the quality and accuracy of the data requested.

4. <u>Description of all tests of procedures or methods to be undertaken.</u>

The pilot survey revealed that the FDIC should collect the survey results electronically in a format that is more standard than a spreadsheet of answers. For the micro-data submission, the FDIC utilized the 2006 pilot test to help better understand the computer systems used by banks for customer information and transaction information. We kept refining the fields in our data collection to keep the survey questionnaire data anonymous, properly linked with the micro-data submissions, and easy to generate from most bank systems. The data was tested for internal consistency and for our ability to construct statistics at the Census tract level. We minimized the amount of transaction information because of the volume of transactions encountered during our pilot test. We

have reduced the data collection down to a level that we feel will give us the most useful information without too much burden.

5. <u>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.</u>

Patricia Cashman for collection and analysis: 202-898-6534 Dave Chapman for statistical design: 202-898-7280 Tim Critchfield for data collection: 202-898-8557 Katherine Samolyk for collection and analysis: 202-898-3655