The Supporting Statement for OMB 0596-0010

Forest Industries and Residential Fuelwood and Post Data Collection Systems

November 2009

Note: The supporting statement includes revisions to 05696-0010 Forest Industry census and incorporates previously approved discontinued information collection 0596-0009, Residential Fuelwood and Post Data Collection. Additionally, the statement requests to use statistical methods to analyze Residential Fuelwood and Post harvest and usage.

B. Collections of Information Employing Statistical Methods

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

The universe of interest will be all households in the selected study State and all known commercial fuelwood producers. The percent of cell-phone-only-households has increased sharply since 2005 which has decrease listed household phone numbers. For this reason, the State cooperator works with a marketing and polling company to acquire a list of household addresses. The study is stratified into 7 categories based on Forest Inventory Units and population density – Metro (cities with a population of 50,000 or more) and Non-Metro households (cities with a population of less than 50,000). Metro households are sampled at a lower intensity than Non-Metro households because a smaller percent of the Metro household population burn or harvest fuelwood or harvest posts. In addition, the average volume that is harvested is significantly smaller in Metro households then in Non-Metro households.

Table 5—Estimated respondent universe for Minnesota in 2012

Survey Population	Estimated Number of Households[1]	Target Number of Respondents	Number of forms mailed at 3.5 times target number	Number of responses expected at 30% return rate	Number of non-responses at 30% return rate
Aspen-Birch Unit					
Metro	37,688	15	53	16	37
Non-Metro	77,317	77	270	81	189
Total	115,005	92	323	97	226

Central Hardwoods Unit					
Metro	69,521	28	98	29	69
Non-Metro	361,108	361	1,264	379	885
Total	430,629	389	1,362	408	954
Metro Unit (all sampled at Metro stratification)					
Metro	1,160,825	464	1,624	487	1,137
Northern Pine Unit					
Non-Metro	124,292	124	434	130	304
Prairie Unit					
Non-Metro	322,956	323	1,131	339	792
State total					
Metro	1,268,034	507	1,775	532	1,243
Non-Metro	885,673	885	3,099	929	2,170
Total	2,153,707	1,392	4,874	1,461	3,413

[1] The number of households is based on the 2007 U.S Census population estimate and an estimated population growth rate of 3.5% from 2007 to 2012.

2. Describe the procedures for the collection of information including:

- **Statistical methodology for stratification and sample selection,**
- **Estimation procedure,**
- **Degree of accuracy needed for the purpose described in the justification,**
- **Unusual problems requiring specialized sampling procedures, and**
- **Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

A random list of addresses is pulled from a list of households the state cooperator acquires from marketing and polling companies. Households will be stratified into 7 categories based on Forest Inventory Units and population density – Metro (cities with a population of 50,000 or more) and Non-Metro households (cities with a population of less than 50,000). Based on past experience, literature searches, and advice from marketing and polling companies, the response rate is expected to be around 30 percent.

In States that have 500 or more logging firms or firewood processors, 10 percent of the logging firms or firewood processors will be surveyed. It is not expected that any State will have more that 1,000 firms that process residential firewood. For states with less than 500 firms, a random sample of 50 firms will be selected. Possible duplicate sampling of loggers in the household sample will be minimized by questioning any household producing more than 20 cords of fuelwood or more than 1,000 posts to determine if their occupation is logging.

Tentative sample sizes were selected to provide reasonable accurate estimates of amounts of fuelwood and posts cut. The standard error of each Forest Inventory Unit should be 20 percent or less of the mean in each state.

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

   To aid efforts in obtaining a higher return rate, the State cooperator mails a postcard approximately two weeks prior to the survey to alert potential respondents about the upcoming mailing. The total number of households mailed the questionnaire is based on an assumed rate of deliverable mailing addresses of 90 percent and an expected return rate of 30 percent (based on past experience, literature searches, and advice from marketing/polling companies).

   To address the issue of non-response, about 3.5 times the number of households are mailed the questionnaire to acquire the desired number of responses for each stratum. The target number of responses statewide is 1,392. This requires that a total of 4,874 (1,392 X 3.5) survey forms to be mailed. If the 30 percent return rate is achieved, a total of 1,461 survey forms will be returned. This increase of 71 survey forms from the desired 1,392 responses should help to lower the standard error, and provide better estimates. In the event the desired number of responses is not reached, a random selection of non-respondents is re-mailed the questionnaire a second time. If the desired number of responses is still not met, an attempt is made to contact a random selection of non-respondents by phone.

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

   No tests of procedures or methods are planned. The State that plans to be conducting the Residential Fuelwood and Posts data collection has been collecting information periodically since 1960, and has been on about a 5-year cycle since 1980. Survey design and questionnaire have been refined over the years so that pre-testing is not needed.

5. Provide the 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.

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