Supporting Statement

AGRICULTURAL LABOR SURVEY

OMB No. 0535-0109

B.   COLLECTION 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 has been conducted previously, include the actual response rate achieved during the last collection.

The universe for the Agricultural Labor Survey is the USDA farm population, about 2.2 million operations (2007 Census of Agriculture). It includes "all operations that sold or would normally sell at least $1,000 worth of agricultural products during the year." A sample of farm operators (and agricultural services firms in California and Florida) is surveyed quarterly in all States except Alaska. Survey data are used to make estimates of number of workers and wage rates for the population.

The Labor Survey is a multiple frame survey using a list frame of farms identified on the List Sampling Frame (LSF) and non-overlap (NOL) records from the June Agricultural Survey (OMB No. 0535-0213) area frame segments. The list is an efficient sampling frame because it contains most of the farms with hired labor. The area frame provides the completeness missing from the list. The survey's multiple frame expansions are unbiased and more precise than expansions that could be obtained from either frame alone.

The agricultural labor sample is based on three sources: each State's list frame; each State's area frame; and, for California and Florida, their list frames of agricultural services.

(1) In all States except California, a list of farms oriented toward the use of farm labor is selected from the agency's list sampling frame. This list is stratified by peak employment figures or, when that is not available, assignment of monetary values to control data i.e., (number of cattle, hogs, crop acreage, and type of crop). It is expected that farms with higher sales are more likely to have hired workers. In California, an Employment Development Department list is sampled; it has approximately 18,000 names of employers

filing disability or unemployment insurance forms for workers. Additional NASS-supplied list samples are drawn from approximately 36,000 names classified on an estimated value of sales. The survey data is collected by EDD and is supplied to NASS as administrative data.

(2) In all states except Hawaii, list incompleteness is measured by sampling "resident farm operators" from the June <u>Area Frame</u> Survey (OMB No. 0535-0213) which are non-overlap with the list. Incompleteness percentages from the July survey are used for modeling the remaining three quarters. Hawaii uses a list-only sampling frame because of the uniqueness of their agricultural industry.

(3) California and Florida also sample from a <u>list of agricultural service firms</u>. This list contains about 3,000 names.

Response rates for each quarterly survey last year are shown in the table below.

Labor Survey Response Rates for Canlendar Year - 2008					
Survey		**Sample Size**	**Freq.**	**Total Contacts**	**Total Responses**	**Response Rate**
List Frame	Jan. '08	9,407	1	9,407	6,956	73.9%
	Apr. '08	8,853	1	8,853	6,617	74.7%
	Jul. '08	9,498	1	9,498	7,106	74.8%
	Oct. '08	9,327	1	9,327	7,054	75.6%
Area Frame	Jul. ' 08	2,100	1	2,100	1,571	74.8%
Ag Services	Quarterly	150	4	600	381	63.5%

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**

List Frame Design: The list sample uses a <u>stratified, replicated sample design</u>. The primary list frame <u>strata</u> are based on farms' peak number of hired worker data; strata of secondary importance are based on calculated farm value of sales (FVS). Sample strata based on peak number of hired workers typically provide most of the labor information we are seeking, so, in order to reduce CV's, records in these strata are sampled with a higher frequency than records with FVS only. Classification categories have been combined into the following sample selection strata.

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	Stratum Descriptions for List Records	
Stratum	**Description**	**FVS/Hired Workers**
41-49	Ag. services (Cal. and Fla. only)	Ag services firms with peak hired workers control data
50	Very small farms	$1,000 - $9,999 FVS and no peak hired worker data
55	Small farms	$10,000 - $99,999 FVS and no peak hired worker data
70	Medium/large farms classified on common commodities	$100,000 - $499,999 FVS and no peak hired worker data
75	Medium/large farms classified on uncommon commodities	$100,000 - $499,999 FVS and no peak hired worker data
79	Hired workers classified on zero (0) peak agricultural workers	All farms with zero (0) hired worker control data and $1,000 - $499,999 FVS
85	Very large farms	$500,000+ FVS and 0 peak hired workers or no peak hired worker data
89*	Extra large farms (Only ND & TX)	$1,000,000 + FVS and 0 peak hired workers or no peak hired worker data
92		All farms with 1-4 peak hired workers control data
93		All farms with 5-9 peak hired workers control data
94	Hired workers classified on number of peak agricultural workers	All farms with 10-19 peak hired workers control data
95		All farms with 20-49 peak hired workers control data
96-99		All farms with 50+ peak hired workers control data

* Stratum exists only in ND and TX

Each State Field Office contacts six replicates each quarter and rotates some of these for the following quarter's survey. This applies to all States except California, where another replication plan is used. Eleven total replications were drawn by the Sample Design Section, with 6 replicates used in any one quarter. The scheme for selecting the list sample replicates each quarter is listed below. This rotation scheme also applies to Florida's agricultural services. Arkansas, Florida, Hawaii, Idaho, Missouri, Oregon, Texas, and Washington have slightly different rotation schemes in some strata.

Replicates by Quarter

First Quarter	1, 2, 3, 4, 5, 6
Second Quarter	3, 4, 5, 6, 7, 8
Third Quarter	6, 7, 8, 9, 10, 11
Etc.	1, 2, 8, 9, 10, 11

Area Frame Design: The U.S. population size for the area frame (Non-OverLap NOL) is about 1,600 tracts. The highest priority for sampling will be given to tracts with positive hired workers. The first-stage, area frame stratification is based on land use. Although the exact stratification differs from State to State, the area frame usually includes strata for:

- heavily cultivated land
- less heavily cultivated land
- residential or ag-urban land with potential for agricultural use
- pasture or grazing land
- completely nonagricultural land

June Area Survey records that are non-overlap (NOL) with the list Labor population are determined in late June for the July - April Labor Survey sample. Sales code = 1 (less than $1,000 FVS) records are excluded from the sampling population; nonagricultural tracts are also excluded from the population because they do not meet the farm definition ($1,000 FVS).

Tracts also undergo a second-stage stratification for Labor based on largest number of hired agricultural workers. This second-stage re-stratification into Labor strata is done as follows:

Area Labor Stratum	Description
3	0 or missing peak workers
11	1-4 peak workers
12	5-9 peak workers
13	10-49 peak workers
14	50-99 peak workers
15	100+ peak workers
21	Labor stratum 3 records with high expansion factors
22	Labor stratum 11 records with high expansion factors

The general intent of area sampling is to select all records above stratum 11 and to sample as many of the records in strata 3 and 11 as possible, given the constraint of overall State and U.S. sample size. In addition, special strata 21 and 22 have been created to sample all operations with high combined June Area expansion factors and farm-tract ratio.   Hawaii uses a re-weighted list estimator in all quarters; all other States use the re-weighted list/modified weighted NOL estimator.

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Data Collection: Generally, a pre-survey letter and sample questionnaire are mailed to the list sample prior to each quarterly survey. The letter alerts respondents that they will be contacted at a later date and encourages them to enter data on the sample questionnaire so that it will be readily available when they are contacted by an enumerator. This procedure allows respondents to compile data at their convenience and reduces interview time when they are contacted.

Included with the pre-survey letter, farm operators are also given the opportunity to respond by internet. They are provided a web-site to contact along with a personalized, secure ID that will allow them to access only their account and provide their information in a secure manner.

State Statistical Offices will attempt to contact non-internet respondents by either telephone or personal visits. Telephone data collection is done mostly using a CATI (computer-assisted telephone interviewing) instrument which automatically delivers forms and manages call-backs and appointments for the enumerators. Those farms expected to have a large number of workers are generally surveyed entirely by personal enumeration. California EDD initially contacts respondents by mail and then interviews non-respondents by telephone.

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.**

   Estimates will be generated for all items at the U.S. level and for 15 regions that are widely used for agricultural analysis. Individual State estimates are published for California, Florida, and Hawaii. The sample is designed to provide regional coefficients of variation of about 5 percent for wage rates and 15 percent for hired workers.

   Survey data are subject to non-sampling errors such as omissions and mistakes in reporting and in processing the data. While these errors cannot be measured directly, they are minimized by carefully reviewing all reported data for consistency and reasonableness.

4. **Describe any tests of procedures or methods to be undertaken.**

   Testing of small groups is conducted periodically.

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), or other person(s) who will actually collect and/or analyze the information for the agency.

The survey design and sample size for each State are determined by the Sampling Branch, Census and Survey Division; Branch Chief is William Iwig, (202)720-3895.

Data collection is carried out by NASS State Statistical Offices; Deputy Administrator for Field Operations is Marshall Dantzler, (202)720-3638.

The NASS survey statistician in Headquarters for the Agricultural Labor surveys is Lorna Drennen (202)720-3598, in the Environmental and Economic Surveys Section of the Survey Administration Branch, Census and Survey Division. She is responsible for coordination of sampling, questionnaires, data collection, training, Interviewers Manual, Survey Administration Manual, data processing, and other Field Office support.

The NASS commodity statistician in Headquarters for the Agricultural Labor surveys is Mark Aiken, (202)720-9525, in the Environmental and Demographics Section of the Environmental, Economics, and Demographics Branch, Statistics Division. He is responsible for national and regional summaries, analysis, presentation to the Agricultural Statistics Board for final estimates, publication, and the Estimation Manual.

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