

Supporting Statement – Part B

Tenure, Ownership, and Transition of Agricultural Land (TOTAL)

OMB No. 0535-0240

The TOTAL Survey consists of two components: (1) a survey with a target population of agricultural operators, and (2) a survey with a target population of owners of agricultural land who are not also agricultural operators. The first component will be conducted similar to the Agricultural Resource Management Survey, Phase 3 (ARMS 3). The Information Collection Request (ICR) for the ARMS 3 is found under OMB Control Number 0535-0275. The list for the second component will be created from a sample of June Area Segments. More information about the June Area Segments can be found under OMB Control Number 0535-0213.

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 Tenure, Ownership, and Transition of Agricultural Land (TOTAL) Survey was first conducted in 2014. It is designed to ascertain information from U.S. farm operators and landlords (landlord only) that rent out land for farming. The target population are U.S. farm operators and landlords (landlord only) that rent out land for farming. The two surveys (farm operator and landlord only) will draw their samples from two different universes.

Both samples will be designed to publish state level data for the 15 core states. The remaining 35 states that will be included in the survey will have their data combined in the “all other States” category, so that US level estimates can be published. The “all other States” category includes Alaska and Hawaii for the first time in 2024.

The 15 core States for landlord statistics account for a significant amount of the total value of agricultural products produced in the three-year period of 2020–2022.

Farm Operator Respondent Universe: The potential respondent universe for the TOTAL survey's operator version, is all active farms on the NASS List Frame in all 50 states, excluding out of scope farms (institutional; experimental or research farms; and Native American Reservations). The approximately 1.9 million farm operators are classified based on total value of sales.

Landlord Only Respondent Universe: The potential respondent universe for the landlord only questionnaire will be derived from the Area Frame segments that are used during our June Area Survey (OMB # 0535-0213). NASS will merge the land segment information with land ownership data from the Farm Services Agency (government entity) along with property tax information purchased from CoreLogic (non-government entity). After the removal of any duplication with the NASS List Frame (farm operators) we will have our target universe for the landlord-only version of the survey.

Response Rates: This is a reinstatement of a previously approved survey. Both the operator and landlord questionnaires will be conducted under the mandatory authority of the Census of Agriculture Act of 1997 (Pub. L. No. 105-113, 7 U.S.C. 2204(g) as amended). With the use of phone and field enumerators to conduct non-response follow-up interviews, NASS will strive for at least an 80% response rate. TOTAL response rates in 2014 were 72.2% for farm operators and 63.7% for land-owners.

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**

The ARMS Sampling Frame specifications are the same as for the TOTAL Operator Sampling Frame; so, the ARMS (multi-phase) sample design will be used to compile the TOTAL Operator Landlord list and area non-overlap sampling frames and select list and area non-overlap operating landlord samples.

ARMS utilizes Stratified Simple Random Sample and Multivariate Probability Proportional to Size techniques to derive sampling frame entity probability of selection. A Sequential Interval Poisson technique is used to select multi-phase samples (OMB Control Number 0535-0218). The Total Operator List Frame is comprised of ~1.9 million operators. Approximately 45,000 operators will be sampled using screener survey results.

The TOTAL Landlord Only Sampling Frame comprises all landlord only entities in JAS segments. The JAS is a multi-phase survey design that stratifies US land (except Alaska) by land use. The first phase selects – within state land use strata combinations – primary sampling units (PSUs) and the second phase

selects segments within selected PSUs. Selected segments are enumerated to ascertain information for all land in each segment (OMB No. 0535-0213). In order to achieve an appropriately sized universe, segments from 2024, along with rotated out segments in 2023 and 2022 are used.

Administrative data from the USDA's Farm Service Agency (FSA) and tax accessor data from CoreLogic will be used to identify landowners within the selected segments. These two sources of landowner data will provide very good coverage of the landowners represented by the sampled June Area segments.

Probabilistic record linkage will then be used to both combine the two landowner datasets and to remove the names of known agricultural operators. The net result will be a list of landowners who are not agricultural operators (i.e., "landlord only"). A probability sample of ~45,000 will be drawn from this list.

Estimates will be generated from data collected on the questionnaire multiplied by a final weight. The final weight will include the selection weight of the sampled June Area segments, the ratio of rented land in the segment over total land rented and a non-response adjustment.

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.

Non-response is taken into account in both versions (operator and landlord) of the TOTAL sample allocations by state. NASS will provide respondents with multiple forms (internet, paper forms, telephone interview, or face-to-face interview) in which they can complete the surveys.

The NASS Public Affairs Office (PAO) promotes NASS survey efforts and educates respondents about the need and use for the data they are asked to provide. This group has developed survey-specific materials enumerating the benefits and uses of the data gathered from the economic surveys. PAO works with data users and industry leaders to provide concrete examples of instances where the data that respondents provide are used to service the respondents. They are also actively publicizing survey activities by generating and distributing news reports and drop-in articles for industry publications and news outlets.

Unit non-response in the TOTAL farm operator weights is adjusted by using calibration. The calibration process modifies the survey weights so that certain targets are met. NASS uses official estimates of farm numbers, corn, soybean, wheat, cotton, fruit, and vegetable acres as well as cattle, milk production, hogs, broilers, eggs, and turkeys as calibration targets.

Unit non-response in the TOTAL landlord only weights is adjusted by using the ratio of the June Area stratum estimate (within a state) of the landlord-only land acres over the TOTAL expanded landlord only rented acres.

Item non-response for the TOTAL surveys is dealt with by using machine imputation. Data collectors do not impute item values in the field. About 300 survey variables that are critical to NASS analysis and/or ERS work are imputed using usable data from current survey respondents. A multivariate imputation scheme is used and covariates come from several different components of the questionnaire including but not limited to: region, economic sales class, type of farm, acreage, and production expenses. Imputed item values are flagged for data users, and the algorithms for imputation are described in technical documents that will be available to data users.

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

NASS uses an OMB-approved generic clearance docket (OMB Control # 0535-0248), to conduct testing and evaluation of NASS questionnaires. Two projects were approved specifically for the 2024 TOTAL: 1) Early-stage scoping interviews; and 2) cognitive interviews. A variety of testing methods, including cognitive testing, focus groups, split sample field tests, etc., are used to test ARMS and other NASS surveys.

Data from the TOTAL survey will be evaluated to see if any changes can be made to future ARMS 3 surveys to lessen the burden on large or complex farm operations.

NASS continues to incorporate the lessons learned from the testing that was conducted based on recommendations of the National Academies of Sciences, Committee on National Statistics (NAS-CNSTAT) comprehensive review of the ARMS surveys. Copies of the November 2007 report are available via the web at: http://books.nap.edu/openbook.php?record_id=11990&page=R1.

The ARMS Progress Report lists tests NASS plans to conduct from 2012 through 2016. http://www.nass.usda.gov/Surveys/ARMS_Progress_Report.pdf.

NASS survey methodologists conducted ten cognitive interviews virtually in 2024 for the purpose of testing revisions to the survey questionnaire between February and March. Nine of the ten respondents were landowners, and one was a farm manager who completed farm tasks on behalf of landowners, including the occasional government survey. In some cases, the participant was a landlord only, and in other cases, they were also an operator. Some of the key findings from that work involved making clearer distinctions between legal entities and “private” owners, reductions in the number of

“expense” categories, and corrections to acres owned and rented question. Another important aspect of the testing included discerning respondent interpretation of questions intending to assess the future plans for agricultural land as well as the time period for when it was acquired. In general, this cognitive testing and the expert reviews of subsequent questionnaires drafted from it helped reduced response burden.

NASS has experience from previous economic surveys that have been beneficial in designing the surveys explained in this Information Collection Request. In 2014, NASS conducted cognitive interviews with eleven non-operating landowners in the Washington DC metro area in order to understand how respondents comprehend the items in the questionnaire and verify that inquiries worked as intended. Due to difficulties gaining cooperation during the recruitment phase, seven of the eleven interviews were conducted with USDA employees during their regularly scheduled workday. All seven USDA employees were eligible respondents based on the criteria of the target population.

The most useful information obtained during the interviews led to the revisions of the screening questions in Section 1. By clearly defining the eligibility criteria for this survey, respondents will now be able to accurately screen themselves during this primarily self-administered questionnaire. Another important finding included the acknowledgement that items were found to overlap between the sections covering the respondent’s expenses. Through the cognitive interviews, we gathered the information necessary to separate all items into mutually exclusive sections on Capital Expenses and Operating Expenses.

Grammatical and minor formatting changes were also made to improve the sequential flow and cosmetic appearance of the questionnaire. Clarifications were added to the questionnaire to aid the respondent’s understanding during administration. Generally, there were no substantial issues with the layout or content of the questionnaire found during testing.

Information that we gained in our cognitive interviews will help us to target any training that is needed for our enumerators when approaching this group of respondents. Response improvement techniques will continue to be researched and tested by NASS to improve response rates in the area of questionnaire improvement, respondent relationship building, and soft refusal conversion techniques.

- 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 sample size for each state is determined by the Sampling, Editing, and Imputation Methodology Branch, Methodology Division; Branch Chief is Andrew Dau. His email is andrew.dau@usda.gov. His phone number is (202) 690-8141.

Data collection is carried out by NASS State and Regional Field Offices. The Director of Western Field Operations is King Whetstone. His Email is king.whetstone@usda.gov. His phone number is (202) 720-9567. The Director of Eastern Field Operations is Jody McDaniel. His email is jody.mcdaniel@usda.gov. His phone number is (202) 720-3638.

The NASS Headquarters statisticians responsible for coordination of sampling, questionnaires, data collection, and other Field Office support are:

Operator Version

Suzanne Adams

Chief of Survey Administration Branch. Her email is suzanne.adams@usda.gov. Her phone number is (202) 720-4028.

Landlord Version

Donald Buysse, Chief of Census Planning Branch. His email is donald.buysse@usda.gov. His phone number is (202) 690-8748.

The national summaries, analysis, and publication are conducted by Economics, Environmental, and Demographics Branch, Statistics Division; Branch Chief is Bryan Combs. His email is bryan.combs@usda.gov. His phone number is (202) 720-6146.

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