



Capture-Recapture Methods for Estimating the Number of US Farms

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USDA's National Agricultural Statistics Service (NASS) conducts the June Agricultural Survey (JAS) annually. Capture-recapture methods have been developed to improve estimates of the number of US farms and the US land in farms. The Census Mailing List (CML) is used as the second sample for the capture-recapture approach in years that the census of agriculture is conducted, and the NASS list frame serves as the second sample in non-census years. Although an operation's farm status is available in census years, the status is not known in non-census years, providing additional technical challenges. For the 2012 US Census of Agriculture, capture-recapture methods served as the foundation for adjusting for under-coverage, non-response, and misclassification. Here the JAS was used as the second sample for capture-recapture. Thus, for 2012, estimates of the number of US farms were obtained from capture-recapture using three different approaches: (1) estimates from the US Census of Agriculture using the JAS, (2) estimates from the JAS using the CML, and (3) estimates from the JAS using the NASS list frame. These three approaches are compared.

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