

2012 Congressional District Assignment Methodology

The census of agriculture, conducted every five years, is the leading source of facts and statistics about the Nation's farms and ranches and the only source of uniform, comprehensive agriculture data for every State and county, or county equivalent, in the U.S. Following each census, reporting farms and ranches are assigned to congressional districts (CD) and two products are prepared, CD profiles and CD rankings. In publishing agricultural summary data by CD for the 2012 Census of Agriculture, the CDs pertain to the 113th Congress.

Purpose and Tabular Presentation

Congressional District profiles provide data on selected farm, economic, and operator characteristics for the farms and ranches assigned to the CD. Seven States have only one CD - Alaska, Delaware, Montana, North Dakota, South Dakota, Vermont, and Wyoming. For these "at large" States, the State total is presented for the district. Profiles are not available for those districts with very little agriculture reported, if any, to protect the confidentiality of individual reports.

Because redistricting occurred between the 2007 and 2012 censuses, the physical composition of many CDs changed significantly. In many cases, CDs are not comparable – i.e., 113th Congress vs. 110th Congress – and no comparisons are included in these CD profiles for current census to previous census.

The ranking of CDs presents the order of districts from largest to smallest for selected items from the 2012 Census of Agriculture. The statistics presented in this report include:

- Operator characteristics
- Farm characteristics
- Selected value of agricultural products sold
- Selected livestock and poultry inventories
- Selected crops area harvested

How Farms were Assigned to Congressional Districts

The 113th Congress CD tabulations of 2012 Census of Agriculture data are based on the location of the operations. Census respondents are asked to declare their principal county of operation as the county with the greatest share of their total value of production. Additionally, the operator's zipcode is known; however, this zipcode does not necessarily relate to the location of the farm or ranch. The CD assignments were based on files produced by the National Agricultural Statistics Service (NASS), as well as other files produced outside of NASS. Digitized county and CD boundary files were provided by the U.S. Census Bureau, the federal agency responsible for congressional apportionment among the States, as well as for mapping the resulting CDs in accordance with State requests. Digitized zipcode boundary files for 2013 were obtained from Environmental Systems Research Institute, Inc.'s (ESRI) data and maps. In addition, digitized agricultural/non-agricultural land boundaries were produced by NASS.

Of the 1,382,099 farm and ranch reports returned for the 2012 Census that were determined to be in-scope farms, 60.9 percent were deterministically assigned to a CD because geocoding software was available that enabled us to geocode the operation's location to the appropriate CD (i.e., for records where the zipcode was within the reported principal county, calculate geographic coordinates for an operation's address and spatially determine in which CD an operation's coordinates are located). Another 34.9 percent of the records were deterministically assigned to a CD because the operation's reported principal county fell entirely within a CD. Another 0.7 percent of the total farm and ranch records were assigned deterministically to a CD because their

mailed zipcode was located in the operation's principal county, and the zipcode fell entirely within a single CD. The remaining 3.5 percent of Census farm and ranch records were assigned probabilistically following a statistical model. These records involved farm operations where either the county or the zipcode contained multiple CDs. For these cases, two models for multiple CD probabilistic assignments were developed. The first model was used if the mailed zipcode was located in the operation's principal county. Then probabilities of assignment to each CD within the zipcode were the proportion of the zipcode's digitized agricultural land contained in the CD, as maintained by NASS. The second model was used if the mailed zipcode was not located in the operation's principal county; NASS used the principal county in carrying out the CD assignment. The probabilities of assignment to each CD within the principal county were the proportion of the county's digitized agricultural land contained in the CD, as maintained by NASS.

Selected probabilistically assigned farms and ranches were reviewed by NASS Regional Field Offices to verify their assignments and, in some cases, corrections were made. The farms and ranches chosen for this review were typically large operations (with respect to their total value of production), or operations with a rare commodity. All published farm counts and totals were fully adjusted for nonresponse, misclassification, and coverage.

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Last Modified: 07/17/2018