

## Appendix C.

# Statistical Methodology

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### MAIL LIST MODEL

Classification analysis was performed to predict the probability that an addressee on the 1992 mail list operated a farm, and thereby separated the preliminary mail list into probable farm and probable nonfarm classes. The analysis was used to reduce the preliminary census mail list of 3.78 million records to a final mail list size of 3.55 million records. All 3.55 million addresses on the final mail list received a census of agriculture report form.

Records from the 1987 final census mail list were used to build a 1992 prediction model for the 1992 analysis. Classification and Regression Trees (CART) software analyzed characteristics of known 1987 farm and nonfarm operations to determine which were most useful in predicting farm and nonfarm classes. Record characteristics such as the source of the mail list record, number of source lists on which the record appeared, expected value of agricultural sales, and geographic location were used to separate mail list records into model groups. (Sources included the previous agriculture census mail list, the Internal Revenue Service administrative records, U.S. Department of Agriculture, and special commodity lists.) The proportion of 1987 census farm records in each model group was calculated to provide an estimate of the probability that an addressee in the group operated a farm.

After the model groups were defined, each address record on the 1992 preliminary mail list was assigned to a model group by matching record characteristics to model group characteristics. Records belonging to the groups with the highest farm probability were those more likely to be farms according to the classification tree methodology. The model, followed by analyst reviews, was used to remove 229,700 records from the preliminary mail list (those in model groups with the lowest farm probability), and thereby designated the 3.55 million records with the highest farm probability to receive the census report form. This procedure was used to obtain a more complete census enumeration of farm operations without excessive respondent burden and data collection cost.

### CENSUS SAMPLE DESIGN

Each of the 3.55 million name and address records on the census mail list was designated to receive one of three different types of census report forms. The three forms were the nonsample form, the screener form, and the

sample form. Sections 1 through 20 and 27 through 32 of the sample form are identical to sections on the nonsample form. The sample form, sections 21 through 26, contains additional questions on usage of fertilizers and chemicals, farm production expenditures, value of machinery and equipment, value of land and buildings, and farm-related income. The screener form is identical to the nonsample form with questions added in section 1 to allow quick identification of nonfarm addresses. These three different forms were used to reduce the response burden of the census, while providing reliable information on a large number of data items.

The sample form was mailed to all mail list records in Alaska, Hawaii, and Rhode Island, and to a sample of records in other States selected from the final mail list. Addresses were selected into the sample with certainty (1) if they were expected to have large total value of agricultural products sold or large acreage, (2) if they were multiunit operations (i.e., separate farms in more than one location), (3) if they had other special characteristics, or (4) if they were in a county with less than 100 farms in 1987. Other addresses in counties containing 100 to 199 farms in 1987 were systematically sampled at a rate of 1 in 2, and other addresses in counties containing 200 farms or more in 1987 were systematically sampled at a rate of 1 in 6. This differential sampling scheme was used to provide reliable data for the sample sections of the report form for all counties. When a nonsample large farm was identified during processing, a supplemental form that contained the additional sample data inquiries was mailed.

To determine which mail list records would receive the screener form, all mail list records not designated for the sample were sorted by model group farm probability as specified by the mail list model. The 412,000 mail list records in the model groups with the lowest probability of being farms and with an expected total value of agricultural product sales less than \$25,000 were designated to receive the screener report form. The remaining mail list records received the nonsample report form.

### CENSUS ESTIMATION

The 1992 Census of Agriculture used two types of statistical estimation procedures. These estimation procedures accounted for nonresponse to the data collection and for the sample data collection. These procedures are necessary because some farm operators never respond to

the census despite numerous attempts to contact them, and the estimates for the sample data are based on a sample of farm operators rather than a full enumeration.

### Whole Farm Nonresponse Estimation

A statistical estimation procedure was used to account for nonrespondent farm operators to the census. We excluded large and unique farm operations that received intensive telephone followup during census processing, assuming complete response from them. A stratified systematic sample of remaining census nonrespondents were contacted by enumerators using a computer-assisted telephone interview system. Five sample strata were defined based on expected value of sales, previous census status, and whether the record was identified by the mail list model to receive the screener report form. The nonresponse survey telephone interview was designed to provide sufficient information to determine the farm status of each record.

In situations where the nonresponse survey case could not be contacted, the contact person refused to cooperate, or when no phone number could be obtained, a screener report form was sent by certified mail.

Estimates of the proportion of census nonrespondents that operated farms were made for each stratum in the State using survey results and applied to the total number of census nonrespondents in that stratum. The number of census nonrespondents that operated farms for each county by stratum was then derived. This estimation procedure is based on the assumption that the distribution of farms in a stratum by county is the same for census nonrespondents as for census respondents.

Certain census respondent farms which exhibited "rare" commodities were designated as "ineligible" to represent census nonrespondent farms and were excluded from the nonresponse weighting operation. The procedure explained below was performed with only the eligible respondent cases: Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. The noninteger nonresponse weight is the ratio of the sum of the estimated number of nonrespondent farms from the nonresponse survey and the number of eligible census respondent farms to the number of eligible census respondent farms. Stratum controls were established to ensure that this weight was never greater than 2.0. The noninteger nonresponse weight was used in the calculation of the final weight for the sample items. The noninteger nonresponse weight was randomly rounded to an integer weight of either 1 or 2 for each record for tabulating the complete count items for publication.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentages in these tables are the percents of the census values contributed by nonresponse estimation. These indicate the potential for bias in published figures resulting from nonresponse to the census. The estimates provided

in these tables do not reflect the effect of item nonresponse to individual census data items. The effect of item nonresponse is discussed in the Census Nonsampling Error section.

Table A. **Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1992**

Item	Percent of total
Farms .....number. .	9.8
Land in farms.....acres. .	1.6
Estimated market value of land and buildings <sup>1</sup> .....\$1,000. .	3.9
Market value of agricultural products sold ..\$1,000. .	2.2
Harvested cropland .....acres. .	4.3
Corn for grain or seed .....acres. .	4.3
Wheat for grain .....acres. .	2.5
Livestock and poultry inventory:	
Cattle and calves .....number. .	3.4
Hogs and pigs .....number. .	3.7
Hens and pullets of laying age.....number. .	.1

<sup>1</sup>Data are based on a sample of farms.

### Sample Estimation

Sample data estimates the population totals that would have resulted from a complete census for the items in sections 21 through 26 of the sample report form. The estimates were obtained from a ratio estimation procedure that resulted in the assignment of a weight to each respondent record containing sample items. For any given county, a sample item total was estimated by multiplying the data items for each farm in the county by the corresponding sample weight and summing over all sample records in the county.

Each respondent sample farm was assigned a sample weight for use in producing estimates for all sample items. For example, if the weight given to a sample farm had the value 6, all sample data items reported by that farm would be multiplied by 6. The weight assigned to a sample certainty farm was 1.

Other than certainty farms, within a county, the ratio estimation procedure for farms was performed in three steps using three variables. The first variable contained eight 1992 total value of agricultural production (TVP) groups. Both the second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The three sets of groups were as follows:

TVP	SIC	Acres
\$1 to \$999	01 All crops	1 to 69
\$1,000 to \$2,499	02 All livestock	70 or more
\$2,500 to \$4,999		
\$5,000 to \$9,999		
\$10,000 to \$24,999		
\$25,000 to \$49,999		
\$50,000 to \$99,999		
\$100,000 or more		

The first step in the estimation procedure was to classify the sample records into 32 mutually exclusive initial post strata formed by the three sets of groups. The total and sample farm counts were expanded to account for nonresponse. Each cell containing sample farm records was assigned an initial sample weight equal to the ratio of the total farm count to the sample farm count. This weight was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure was to combine, if necessary, the 32 initial post strata to increase the reliability of the ratio estimation procedure. Any stratum that contained less than 10 sample farms after nonresponse adjustment or had a weight greater than two times the mail sample rate was collapsed with another stratum. The mail sample rate was either 2 or 6, depending on whether the county had a 1 in 2 or 1 in 6 sample selection rate. The collapsing occurred within the initial 32 post strata according to a specified collapsing pattern. After the collapsing process was completed, new total farm counts and sample farm counts were computed from each of the final post strata and were used to calculate final sample weights.

The final step consisted of assigning the noninteger final post stratum weight to the sample farm records in each post stratum. The weight is the ratio of total farm count to sample farm count in each final post stratum. The noninteger sample weight, the product of the noninteger final post stratum weight and the nonresponse weight, was randomly rounded to an integer weight for tabulation. If, for example, the final weight for the farms in a particular post stratum was 7.2, then 0.2 or one-fifth of the sample farms in this post stratum were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

## CENSUS SAMPLING ERROR

The sample for the 1992 Census of Agriculture is only one of a large number of possible samples of the same size that could have been selected using the same sample design. Sample refers to the sample for both the nonresponse survey and the selection of farms to receive the sample report forms. Estimates derived from all the possible samples would differ from each other only by random variation.

The standard error or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The percent relative standard error of an estimate is defined as 100 times the standard error of the estimate divided by the value of the estimate.

If all possible samples were selected, each of the samples were surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then:

1. Approximately 90 percent of the intervals from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate would include the average value of all possible samples.
2. Approximately 95 percent of the intervals from 1.96 standard errors below the estimate to 1.96 standard errors above the estimate would include the average value of all possible samples.

The following example illustrates the computations necessary for producing a confidence interval for an estimate. Assume that the estimate of number of farms for a State is 94,382 and the relative standard error of the estimate is .1 percent (0.001). Multiplying 94,382 by 0.001 yields 94, the standard error; therefore, a 90-percent confidence interval is 94,227 to 94,537 (i.e., 94,382 plus or minus 1.65 x 94). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 90 percent of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is 94,198 to 94,566 (i.e., 94,382 plus or minus 1.96 x 94).

Census items were classified as either complete count or sample count items. Complete count items were asked of all farm operators. Examples of complete count items were land in farms, harvested cropland, livestock inventory and sales, crop acreage, quantities harvested and crop sales, land use, irrigation, government loans and payments, conservation acreage, type of organization, and operator characteristics.

Sample count items were asked only of a sample of farm operators. These items appeared only in sections 21 through 26 of the sample report form. Sample count items were included under the following section headings: commercial fertilizers, chemicals, production expenses, farm machinery and equipment, value of land and buildings, and farm-related income.

Variability, measured as percent relative standard error, in the estimates of complete count items is due only to the nonresponse survey estimation procedure. Variability in the estimates of sample count items is due to both the nonresponse survey estimation procedure and the census sample selection and estimation procedure. Thus, variability in the sample count item estimates tends to be larger than the variability in the complete count item estimates.

Table B provides the generalized reliability estimates of the estimated number of farms in a county reporting complete count and sample count items. The top half of the table shows the percent relative standard error for estimated number of farms in a county reporting a complete count item and the bottom half a sample count item. These are derived from regression equations. Separate regression equations were used for complete count items and sample count items. Each regression equation was fit with the estimated number of farms in a county reporting an item as the independent variable and the relative variance of that estimate as the dependent variable for all counties in the State. For sample count items, only data

from counties sampled at a rate of 1 in 6 are used in the estimation of the regression equation.

**Table B. Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item or Sample Count Item: 1992**

Farms	Relative standard error of estimate (percent)
<b>COMPLETE COUNT ITEM</b>	
Number of farms reporting:	
25 .....	5.1
50 .....	3.1
75 .....	2.0
100 .....	1.2
150 .....	.9
200 .....	.8
300 .....	.7
500 .....	.5
750 .....	.4
1,000 .....	.4
1,500 .....	.3
2,000 .....	.3
<b>SAMPLE COUNT ITEM</b>	
Number of farms reporting:	
25 .....	23.4
50 .....	19.1
75 .....	17.5
100 .....	16.6
150 .....	15.6
200 .....	15.1
300 .....	14.6
500 .....	14.2
750 .....	14.0
1,000 .....	13.9
1,500 .....	13.8
2,000 .....	13.7

To illustrate the use of this table, assume that the estimate of the number of farms reporting hogs and pigs for a particular county, as given in county table 15, is 89. Since hogs and pigs is a complete count data item, refer to the first part of table B and use the estimated percent relative standard error of the estimate from the row with farm count equal to or just less than the estimated number of farms, 89. For this example, the percent relative standard error of the estimate comes from the row for 75 farms reporting. For sample count items, follow the same procedure using the second part of table B. For counties with fewer than 100 farms in the 1987 Census of Agriculture, variability in sample count item estimates comes only from nonresponse survey estimation procedures; thus, the estimated relative standard error for a sample count item in these counties may be obtained using the first part of table B.

Table C presents the percent relative standard error of selected State data items for all farms, and table D presents the percent relative standard error of selected State data items for all farms with sales of \$10,000 or more.

Table E presents the percent standard error for percent change in State totals from 1987 to 1992. The general

purpose of the percent change estimate is to provide a relative measure of the difference in a characteristic between censuses. The relative change for a given characteristic is defined as the ratio of the difference of the 1992 and the 1987 estimate for that characteristic to the 1987 estimate. This ratio is multiplied by 100 to obtain the percent change. The percent standard error of a percent change estimate, then, is the standard error of the ratio multiplied by 100.

Table F presents the percent relative standard error for State and county totals for selected data items. The percent relative standard error of the estimate for the same item differs among counties in the State. Reasons for this are differences among counties in (1) the total number of farms, (2) the number of large farms included with certainty, (3) the size classifications of the farms sampled, (4) the amount of nonresponse, (5) the general agricultural characteristics, and (6) the specific characteristic being measured.

### CENSUS NONSAMPLING ERROR

The accuracy of the census counts are affected jointly by sampling errors, described in the previous section, and nonsampling errors. Extensive efforts were made to compile a complete and accurate mail list for the census, to design an understandable report form with instructions, and to minimize processing errors through the use of quality control measures on specific operations. Nonsampling errors arise from incompleteness of the census mail list, duplication in the mail list, incorrect data reporting, errors in editing of reported data, and errors in imputation for missing data. These specific nonsampling errors are further discussed in this section. Evaluation studies will be conducted to measure the extent of certain nonsampling errors such as coverage error and classification error.

### Census Coverage

The main objective of the census of agriculture is to obtain a complete and accurate enumeration of U.S. farms with accurate data on all aspects of the agricultural operation. However, the high cost and availability of resources for enumeration place restrictions on feasible data collection methodologies. The past six agriculture censuses have been conducted by mail enumeration with telephone contact for selected nonrespondents. The completeness of such an enumeration thus depends to a large extent on the coverage of farm operations by the census mail list.

The past five censuses of agriculture have included approximately 91 percent of farms in the United States and approximately 96 percent of agriculture production. Complete enumeration of agricultural operations satisfying the farm definition of \$1,000 or more in agricultural sales is complicated by fluctuations in agricultural operations qualifying for enumeration, the variety of arrangements under which farms are operated, the multiplicity of names used

by an operation, the number of operations in which an operator participates, the accuracy of data reporting, and other factors. A new mail list is compiled for each census because no current single list of agricultural operations is comprehensive.

An evaluation of census coverage has been conducted for each census of agriculture since 1945. The evaluation provides estimates of the completeness of census farm count and major census data items. In addition, the evaluation helps to identify problems in the census enumeration and provide information that can form the basis for improvements. The results of the 1992 Coverage Evaluation program will be published in volume 2, Subject Series (Part 2): Coverage Evaluation.

The evaluation of coverage for the 1992 census was designed to measure four components of error in the census mail list and in farm classification. Mail list error includes two components of error, a measurement of farms not on the census mail list (undercount) and a measurement of farms enumerated more than once in the census (overcount). Classification error includes two components of error, a measurement of farms classified as nonfarms in the census (undercount) and of nonfarms classified as farms in the census (overcount). Classification error arises from reporting and processing errors. Mail list undercount dominates all coverage errors. Net coverage error is defined as the difference between undercounted and overcounted farms. Measurements of these errors, as well as a description of the complete coverage program, will be available in the Coverage Evaluation report.

## Mail List Coverage

A major problem with mail enumeration for the census of agriculture is the difficulty encountered in compiling a complete mail list. The percentage of farms included on the census mail list varies considerably by State. Several reasons have contributed to farm operator names not being included on the census mail list—the operation may have been started after the mail list was developed, the operation may be so small as not to appear in any of the agriculture-related source lists used in compiling the census list, or the operation may have been falsely classified as a nonfarm prior to mailout. A large proportion of the farms not included on the mail list are small in both acres and sales of agricultural products.

The 1992 Census of Agriculture Coverage Evaluation used the area segment sample of the 1992 June Agricultural Survey (JAS) of the National Agricultural Statistical Service (NASS) to estimate farms not on the census mail list. The Census Bureau contracted with NASS to augment the JAS data collection. The survey data collected by NASS will be protected under the confidentiality of title 13, U.S. Code. These JAS survey records were matched to the census mail list. Records that did not match were mailed a census of agriculture report form to estimate mail list

coverage. Estimates of farms not on the census mail list are computed using a capture-recapture dual frame estimator which will be described in the Coverage Evaluation report mentioned earlier.

Table G provides coverage evaluation estimates for one component of coverage error associated with the census of agriculture; that is, the error due to farms not on the census mail list. Also provided are estimates of selected characteristics of farms not on the mail list, estimates of characteristics of farms not on the mail list as a percentage of total farms in the State, and the percent relative standard error associated with each estimate. The estimate of total farms in the State is based on census farm count plus the estimated number of farms not on the census mail list. This estimate of total farms in the State was not adjusted for the components of error associated with classification and list duplication error. Estimates of these errors will be made at the regional, rather than the State level, and will be provided in the Coverage Evaluation report mentioned earlier.

## Respondent and Enumerator Error

Incorrect or incomplete responses to the mailed census report form or to the questions posed by a telephone enumerator introduce error into the census data. Such incorrect information can lead, in some cases, to incorrect classification of farms. This type of reporting error is measured by the Classification Error Survey discussed later in this section. To reduce all types of reporting error, detailed instructions for completing the report form were provided to each addressee. Questions were phrased as clearly as possible based on tests of the census report form and each respondent's answers were checked for completeness and consistency.

## Item Nonresponse

As information flows from data collection to tabulation, various types of item nonresponses are identified on the report forms. Nonresponse to particular questions on the report form that logically should be present may create a type of nonsampling error in both complete count and sample count data. When information from reporting farms is used to edit or impute for item nonresponse, the data may be biased due to characteristics of the nonreporting respondents differing from those reporting the item. Any attempt to correct the data items may not completely reflect this difference either at the element level (individual farm operation) or on the average.

## Processing Error

All phases of processing for each report form are sources for the introduction of nonsampling error. The processing of the report forms includes clerical screening for farm activity, computerized check-in of report forms and follow-up of nonrespondents, keying and transmittal of

completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors are not detected and corrected.

### **Classification Error**

An evaluation study of classification errors was conducted in the 1992 Census of Agriculture as part of the census coverage evaluation program. A sample of census mail list respondents was selected, and these addresses were reenumerated to determine whether they were a farm or nonfarm. A farm status determination was made based on the evaluation report form and compared with the census farm status which was based on the data reported on the report form. Differences in status were reconciled.

In past censuses, the proportion of farms undercounted due to classification errors was higher for farms with small values of sales. For the 1987 census, the classification error rate was higher for (1) farms with small values of sales, (2) farms with a small number of acres, (3) full-owner farms than part-owner or tenant farms, (4) operators with principal occupation other than farming, and (5) males than females. Results from the 1992 Classification Error Survey will be published in the Coverage Evaluation report.

### **EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE**

The Census of Agriculture Complex Edit and Imputation System performs the following functions:

- Ensuring reasonable relationships between/among data items, values for various sizes of farms, and combinations of commodities.
- Ensuring necessary consistencies are present. There are more than 70 distinct consistency requirements.
- Ensuring geographic, legal, and physical constraints are met.

The system must perform these and similar functions for 900 data keycodes for sample records and 850 data keycodes for nonsample records.

For the 1992 Census of Agriculture, as in previous censuses, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the minimum criteria to be counted as farms in the census. The complex edit and imputation system provided the basis for deciding to accept, impute (supply), delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and changes were based on component or related data on the respondent's report form. For some items, such as operator characteristics, data from the previous census were used when available. Values for other missing or unacceptable reported data items were calculated based on reported quantities and known price parameters.

When these and similar methods were not available and values had to be supplied, the imputation process used information reported for another farm operation in a geographically adjacent area with characteristics similar to those of the farm operation with incomplete data. For example, a farm operation that reported acres of corn harvested, but did not report quantity of corn harvested, was assigned the same bushels of corn per acre harvested as that of the last nearby farm with similar characteristics that reported acceptable yields during that particular execution of the computer edit. The imputation for missing items in each section of the report form was conducted separately; thus, assigned values for one operation could come from more than one respondent.

Prior to the imputation operation, a set of default values and relationships were assigned to the possible imputation variables. The relationships and values varied depending on the item being imputed. For example, different default values were assigned for several standard industrial classification and total value of sales categories when imputing hired farm labor expenses. These values and item relationships for the possible imputation variables were stored in the computer in a series of matrices.

Each execution of the computer edit consisted of records from only one State. The computer records were sorted by reported State and county. For a given execution of the edit, the stored entries in the various matrices were retained in memory only until a succeeding record having acceptable characteristics for some sections of the report form was processed by the computer. Then the acceptable responses of the succeeding operation replaced those previously stored. When a record processed through the edit had unreported or unacceptable data, the record was assigned the last acceptable ratio or response from an operation with a similar set of characteristics. Once each execution of the computer edit for a State was completed, the possible imputation variables were reset to the default values and relationships for subsequent executions.

After the initial computer edit, keyed reports not meeting the census farm definition were reviewed to ensure that the data were keyed correctly. Edit referrals were generated for about 25 percent of the reports included as farms; they were reviewed for keying accuracy to ensure that the computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record was reedited.

**Table C. Reliability Estimates of State Totals for All Farms: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>FARMS AND LAND IN FARMS</b>			<b>FARM PRODUCTION EXPENSES<sup>1</sup></b>		
Farms -----number--	13 520	.7	Total farm production expenses -----farms--	13 518	.7
Land in farms -----acres--	9 624 463	.1	-----\$1,000--	602 812	.5
Average size of farm -----acres--	712	.7	Average per farm -----dollars--	44 593	.9
<b>MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>			Livestock and poultry purchased -----farms--		
Total sales (see text) -----farms--	13 520	.7	-----\$1,000--	103 978	1.4
-----\$1,000--	725 159	.2	Feed for livestock and poultry -----farms--	7 544	1.7
Average per farm -----dollars--	53 636	.7	-----\$1,000--	135 079	.6
Farms by value of sales:			Commercially mixed formula feeds -----farms--	2 575	3.5
Less than \$1,000 (see text) -----farms--	2 023	1.2	-----\$1,000--	56 345	.8
-----\$1,000--	496	1.5	Seeds, bulbs, plants, and trees -----farms--	5 400	2.1
\$1,000 to \$2,499 -----farms--	1 956	1.2	-----\$1,000--	9 980	1.7
-----\$1,000--	3 180	1.2	Commercial fertilizer -----farms--	6 272	1.9
\$2,500 to \$4,999 -----farms--	1 751	1.1	-----\$1,000--	17 412	1.8
-----\$1,000--	6 243	1.1	Agricultural chemicals -----farms--	5 917	1.9
\$5,000 to \$9,999 -----farms--	1 845	1.0	-----\$1,000--	8 569	2.2
-----\$1,000--	13 107	1.0	Petroleum products -----farms--	12 670	.9
\$10,000 to \$19,999 -----farms--	1 692	1.0	-----\$1,000--	34 722	1.0
-----\$1,000--	23 890	1.0	Electricity -----farms--	7 326	1.7
\$20,000 to \$24,999 -----farms--	525	1.3	-----\$1,000--	15 448	1.5
-----\$1,000--	11 549	1.3	Hired farm labor -----farms--	5 860	1.9
\$25,000 to \$39,999 -----farms--	860	1.1	-----\$1,000--	72 014	.9
-----\$1,000--	27 078	1.1	Contract labor -----farms--	1 791	4.3
\$40,000 to \$49,999 -----farms--	381	1.4	-----\$1,000--	6 866	4.6
-----\$1,000--	16 854	1.4	Repair and maintenance -----farms--	11 133	1.1
\$50,000 to \$99,999 -----farms--	987	.8	-----\$1,000--	39 227	1.4
-----\$1,000--	69 587	.8	Customwork, machine hire, and rental of machinery and equipment -----farms--	4 665	2.4
\$100,000 to \$249,999 -----farms--	876	—	-----\$1,000--	8 726	2.6
-----\$1,000--	138 060	—	Interest expense -----farms--	5 460	2.0
\$250,000 to \$499,999 -----farms--	399	—	-----\$1,000--	42 771	1.5
-----\$1,000--	137 591	—	Secured by real estate -----farms--	4 032	2.5
\$500,000 or more -----farms--	225	—	-----\$1,000--	30 695	1.9
-----\$1,000--	277 524	—	Not secured by real estate -----farms--	2 711	3.0
Sales by commodity or commodity group:			-----\$1,000--	12 076	1.6
Crops, including nursery and greenhouse crops -----farms--	6 145	.7	Cash rent -----farms--	3 924	2.6
-----\$1,000--	181 380	.3	-----\$1,000--	17 742	2.7
Grains -----farms--	2 529	.7	Property taxes -----farms--	12 801	.9
-----\$1,000--	38 467	.4	-----\$1,000--	15 548	1.5
Corn for grain -----farms--	350	1.3	All other farm production expenses -----farms--	12 467	.9
-----\$1,000--	4 966	.8	-----\$1,000--	74 729	.9
Wheat -----farms--	1 228	.7	<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>		
-----\$1,000--	20 533	.4	All farms -----number--	13 518	.7
Soybeans -----farms--	—	—	-----\$1,000--	123 215	1.8
-----\$1,000--	9	8.2	Average per farm -----dollars--	9 115	1.9
Sorghum for grain -----farms--	79	1.8	Farms with net gains <sup>2</sup> -----number--	6 548	1.7
-----\$1,000--	1 496	.8	-----\$1,000--	159 635	1.1
Barley -----farms--	11 130	.6	Average net gain -----dollars--	24 379	2.1
-----\$1,000--	262	1.7	Farms with net losses -----number--	6 970	1.7
Oats -----farms--	460	1.8	-----\$1,000--	36 419	2.7
-----\$1,000--	72	1.7	Average net loss -----dollars--	5 225	3.2
Other grains -----farms--	1 299	1.1	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>		
Cotton and cottonseed -----farms--	—	—	Government payments -----farms--	2 357	.6
-----\$1,000--	—	—	-----\$1,000--	17 464	.3
Tobacco -----farms--	—	—	Other farm-related income <sup>1</sup> -----farms--	2 760	3.5
-----\$1,000--	—	—	-----\$1,000--	11 917	4.7
Hay, silage, and field seeds -----farms--	4 328	.8	Customwork and other agricultural services -----farms--	1 085	5.7
-----\$1,000--	60 999	.5	-----\$1,000--	7 041	6.9
Vegetables, sweet corn, and melons -----farms--	361	1.4	Gross cash rent or share payments -----farms--	1 224	6.0
-----\$1,000--	13 420	.7	-----\$1,000--	2 849	8.7
Fruits, nuts, and berries -----farms--	568	1.3	Forest products and Christmas trees -----farms--	106	20.3
-----\$1,000--	21 395	.6	-----\$1,000--	224	11.1
Nursery and greenhouse crops -----farms--	218	1.7	Other farm-related income sources -----farms--	737	5.9
-----\$1,000--	38 724	.3	-----\$1,000--	1 804	7.9
Other crops -----farms--	97	2.5	<b>COMMODITY CREDIT CORPORATION LOANS</b>		
-----\$1,000--	8 375	.2	Total -----farms--	140	1.4
Livestock, poultry, and their products -----farms--	9 310	.6	-----\$1,000--	2 097	.8
-----\$1,000--	543 779	.1			
Poultry and poultry products -----farms--	313	1.6			
-----\$1,000--	60 707	.1			
Dairy products -----farms--	762	.6			
-----\$1,000--	150 992	.1			
Cattle and calves -----farms--	7 212	.6			
-----\$1,000--	269 610	.2			
Hogs and pigs -----farms--	575	1.4			
-----\$1,000--	5 754	1.1			
Sheep, lambs, and wool -----farms--	1 697	.9			
-----\$1,000--	26 859	.2			
Other livestock and livestock products (see text) -----farms--	1 820	1.0			
-----\$1,000--	29 856	.5			
Value of agricultural products sold directly to individuals for human consumption (see text) -----farms--	1 010	1.2			
-----\$1,000--	3 666	1.5			

See footnotes at end of table.

**Table C. Reliability Estimates of State Totals for All Farms: 1992 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>LAND IN FARMS ACCORDING TO USE</b>			<b>TENURE OF OPERATOR</b>		
Total cropland ----- farms ..	11 700	.6	All operators ----- farms ..	13 520	.7
Harvested cropland ----- farms ..	2 093 779	.3	Full owners ----- farms ..	9 624 463	.1
1 to 9 acres ----- farms ..	10 173	.6	Part owners ----- farms ..	8 212	.7
10 to 19 acres ----- farms ..	1 043 347	.3	Tenants ----- farms ..	3 904 473	.2
20 to 29 acres ----- farms ..	2 115	1.2	Tenants ----- farms ..	4 229	.6
30 to 49 acres ----- farms ..	9 781	1.2	Tenants ----- farms ..	5 001 644	.1
50 to 99 acres ----- farms ..	1 475	1.1	Tenants ----- farms ..	1 079	1.2
100 to 199 acres ----- farms ..	19 590	1.1	Tenants ----- farms ..	718 346	.3
200 to 499 acres ----- farms ..	1 073	1.1			
500 to 999 acres ----- farms ..	24 609	1.1	<b>OWNED AND RENTED LAND</b>		
1,000 acres or more ----- farms ..	1 388	1.0	Land owned ----- farms ..	12 487	.6
	51 976	1.0	Owned land in farms ----- farms ..	7 007 721	.2
			Owned land in farms ----- farms ..	12 441	.6
			Owned land in farms ----- farms ..	6 507 234	.1
			Land rented or leased from others ----- farms ..	5 342	.6
			Rented or leased land in farms ----- farms ..	3 146 254	.1
			Rented or leased land in farms ----- farms ..	10 975	.6
			Rented or leased land in farms ----- farms ..	5 308	.6
			Rented or leased land in farms ----- farms ..	3 117 229	.1
			Land rented or leased to others ----- farms ..	1 175	1.1
			Land rented or leased to others ----- farms ..	529 512	1.1
			<b>OPERATOR CHARACTERISTICS</b>		
			Operators by place of residence:		
			On farm operated ----- farms ..	8 476	.7
			Not on farm operated ----- farms ..	4 048	.8
			Not reported ----- farms ..	996	.9
			Operators by principal occupation:		
			Farming ----- farms ..	6 269	.5
			Other ----- farms ..	7 251	.9
			Operators by days worked off farm:		
			Any ----- farms ..	8 142	.8
			200 days or more ----- farms ..	5 614	.9
			Operators by sex:		
			Male ----- farms ..	12 925	.6
			Female ----- farms ..	9 387 073	.1
			Female ----- farms ..	595	1.4
			Female ----- farms ..	237 390	.5
			Average age of operator ----- years ..	54.8	.9
			<b>FARMS BY TYPE OF ORGANIZATION</b>		
			Individual or family (sole proprietorship) ----- farms ..	11 030	.7
			Partnership ----- farms ..	4 287 881	.2
			Partnership ----- farms ..	1 616	.9
			Partnership ----- farms ..	2 059 921	.2
			Corporation:		
			Family held ----- farms ..	584	.9
			Family held ----- farms ..	1 369 799	.1
			More than 10 stockholders ----- farms ..	33	4.2
			10 or less stockholders ----- farms ..	551	.9
			Other than family held ----- farms ..	81	2.3
			More than 10 stockholders ----- farms ..	335 294	.1
			10 or less stockholders ----- farms ..	31	2.6
			10 or less stockholders ----- farms ..	50	3.3
			Other—cooperative, estate or trust, institutional, etc. ----- farms ..	209	1.6
			Other—cooperative, estate or trust, institutional, etc. ----- farms ..	1 571 568	.1
			<b>HIRED FARM LABOR</b>		
			Hired workers by days worked:		
			150 days or more ----- farms ..	2 460	3.0
			150 days or more ----- farms ..	6 050	1.6
			Less than 150 days ----- farms ..	5 280	2.1
			Less than 150 days ----- farms ..	20 072	3.2
			<b>INJURIES AND DEATHS</b>		
			Farm-related injuries:		
			Operator and family members ----- farms ..	188	1.8
			Operator and family members ----- farms ..	221	1.8
			Hired workers ----- farms ..	103	1.4
			Hired workers ----- farms ..	207	.7
			Farm-related deaths:		
			Operator and family members ----- farms ..	4	11.3
			Operator and family members ----- farms ..	4	11.3
			Hired workers ----- farms ..	2	—
			Hired workers ----- farms ..	(D)	(D)
<b>VALUE OF LAND AND BUILDINGS <sup>1</sup></b>					
Estimated market value of land and buildings ----- farms ..	13 518	.7			
Average per farm ----- \$1,000 ..	4 704 020	2.0			
Average per farm ----- dollars ..	347 982	2.1			
Average per acre ----- dollars ..	491	2.1			
<b>VALUE OF MACHINERY AND EQUIPMENT <sup>1</sup></b>					
Estimated market value of all machinery and equipment ----- farms ..	13 460	.7			
Average per farm ----- \$1,000 ..	526 636	1.1			
Average per farm ----- dollars ..	39 126	1.3			
<b>AGRICULTURAL CHEMICALS <sup>1</sup></b>					
Commercial fertilizer ----- farms ..	6 232	1.9			
acres on which used -----	596 697	1.6			

See footnotes at end of table.





**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>FARMS AND LAND IN FARMS</b>			<b>FARM PRODUCTION EXPENSES<sup>1</sup></b>		
Farms ----- number ..	5 945	.5	Total farm production expenses ----- farms ..	5 940	.9
Land in farms ----- acres ..	8 154 998	.1	----- \$1,000 ..	564 537	.5
Average size of farm ----- acres ..	1 372	.5	Average per farm ----- dollars ..	95 040	1.0
<b>MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>			Livestock and poultry purchased ----- farms ..		
Total sales (see text) ----- farms ..	5 945	.5	----- \$1,000 ..	99 000	1.4
----- \$1,000 ..	702 133	.1	Feed for livestock and poultry ----- farms ..	3 879	1.9
Average per farm ----- dollars ..	118 105	.6	----- \$1,000 ..	130 887	.6
Farms by value of sales:			----- farms ..	1 521	3.7
\$10,000 to \$19,999 ----- farms ..	1 692	1.0	----- \$1,000 ..	55 809	.8
----- \$1,000 ..	23 890	1.0	Seeds, bulbs, plants, and trees ----- farms ..	3 417	2.1
\$20,000 to \$24,999 ----- farms ..	525	1.3	----- \$1,000 ..	9 399	1.8
----- \$1,000 ..	11 549	1.3	Commercial fertilizer ----- farms ..	3 609	1.9
\$25,000 to \$39,999 ----- farms ..	860	1.1	----- \$1,000 ..	16 217	1.9
----- \$1,000 ..	27 078	1.1	Agricultural chemicals ----- farms ..	3 491	2.0
\$40,000 to \$49,999 ----- farms ..	381	1.4	----- \$1,000 ..	7 960	2.2
----- \$1,000 ..	16 854	1.4	Petroleum products ----- farms ..	5 889	.9
\$50,000 to \$99,999 ----- farms ..	987	.8	----- \$1,000 ..	30 558	1.1
----- \$1,000 ..	69 587	.8	Electricity ----- farms ..	4 232	1.7
\$100,000 to \$249,999 ----- farms ..	876	—	----- \$1,000 ..	14 646	1.6
----- \$1,000 ..	138 060	—	Hired farm labor ----- farms ..	3 731	2.0
\$250,000 to \$499,999 ----- farms ..	399	—	----- \$1,000 ..	70 546	.9
----- \$1,000 ..	137 591	—	Contract labor ----- farms ..	1 189	4.6
\$500,000 or more ----- farms ..	225	—	----- \$1,000 ..	6 562	4.8
----- \$1,000 ..	277 524	—	Repair and maintenance ----- farms ..	5 478	1.2
Sales by commodity or commodity group:			----- \$1,000 ..	33 837	1.5
Crops, including nursery and greenhouse crops ----- farms ..	3 052	.7	Customwork, machine hire, and rental of machinery and equipment ----- farms ..	2 631	2.6
----- \$1,000 ..	173 195	.3	----- \$1,000 ..	7 617	2.8
Grains ----- farms ..	1 708	.7	Interest expense ----- farms ..	3 759	1.9
----- \$1,000 ..	36 617	.4	----- \$1,000 ..	39 327	1.5
Corn for grain ----- farms ..	289	1.3	----- \$1,000 ..	2 814	2.4
----- \$1,000 ..	4 822	.8	Secured by real estate ----- farms ..	27 784	1.9
Wheat ----- farms ..	934	.7	----- \$1,000 ..	1 994	3.1
----- \$1,000 ..	19 769	.4	Not secured by real estate ----- farms ..	11 543	1.6
Soybeans ----- farms ..	—	—	----- \$1,000 ..	—	—
----- \$1,000 ..	—	—	Cash rent ----- farms ..	2 608	2.7
Sorghum for grain ----- farms ..	9	8.2	----- \$1,000 ..	16 631	2.8
----- \$1,000 ..	79	1.8	Property taxes ----- farms ..	5 715	1.0
Barley ----- farms ..	1 032	.9	----- \$1,000 ..	11 074	1.6
----- \$1,000 ..	10 305	.7	All other farm production expenses ----- farms ..	5 940	.9
Oats ----- farms ..	157	2.0	----- \$1,000 ..	70 276	.9
----- \$1,000 ..	351	2.0	<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>		
Other grains ----- farms ..	68	1.7	All farms ----- number ..	5 940	.9
----- \$1,000 ..	1 292	1.1	----- \$1,000 ..	137 953	1.5
Cotton and cottonseed ----- farms ..	—	—	Average per farm ----- dollars ..	23 224	1.7
----- \$1,000 ..	—	—	Farms with net gains <sup>2</sup> ----- number ..	4 445	1.6
Tobacco ----- farms ..	—	—	----- \$1,000 ..	155 845	1.1
----- \$1,000 ..	—	—	Average net gain ----- dollars ..	35 061	2.0
Hay, silage, and field seeds ----- farms ..	2 060	.8	Farms with net losses ----- number ..	1 495	4.2
----- \$1,000 ..	55 905	.5	----- \$1,000 ..	17 892	4.0
Vegetables, sweet corn, and melons ----- farms ..	217	1.5	Average net loss ----- dollars ..	11 968	5.8
----- \$1,000 ..	13 108	.7	<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>		
Fruits, nuts, and berries ----- farms ..	215	1.8	Government payments ----- farms ..	1 637	.6
----- \$1,000 ..	20 693	.7	----- \$1,000 ..	14 881	.3
Nursery and greenhouse crops ----- farms ..	147	1.8	Other farm-related income <sup>1</sup> ----- farms ..	1 442	4.0
----- \$1,000 ..	38 534	.3	----- \$1,000 ..	9 699	5.4
Other crops ----- farms ..	67	2.5	Customwork and other agricultural services ----- farms ..	640	6.3
----- \$1,000 ..	8 337	.2	----- \$1,000 ..	6 121	7.7
Livestock, poultry, and their products ----- farms ..	4 840	.5	Gross cash rent or share payments ----- farms ..	460	8.9
----- \$1,000 ..	528 938	.1	----- \$1,000 ..	1 775	11.8
Poultry and poultry products ----- farms ..	150	1.5	Forest products and Christmas trees ----- farms ..	35	23.5
----- \$1,000 ..	60 606	.1	----- \$1,000 ..	144	3.0
Dairy products ----- farms ..	730	.6	Other farm-related income sources ----- farms ..	557	6.0
----- \$1,000 ..	150 936	.1	----- \$1,000 ..	1 658	8.3
Cattle and calves ----- farms ..	4 191	.5	<b>COMMODITY CREDIT CORPORATION LOANS</b>		
----- \$1,000 ..	258 900	.2	Total ----- farms ..	122	1.3
Hogs and pigs ----- farms ..	274	1.6	----- \$1,000 ..	2 057	.8
----- \$1,000 ..	5 302	1.1			
Sheep, lambs, and wool ----- farms ..	759	.8			
----- \$1,000 ..	25 487	.2			
Other livestock and livestock products (see text) ----- farms ..	717	1.0			
----- \$1,000 ..	27 707	.5			
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms ..	338	1.4			
----- \$1,000 ..	2 832	1.9			

See footnotes at end of table.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More: 1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>LAND IN FARMS ACCORDING TO USE</b>			<b>FARMS BY TYPE OF ORGANIZATION</b>		
Total cropland ----- farms ..	5 380	.5	Individual or family (sole proprietorship) ----- farms ..	4 322	.6
Harvested cropland ----- acres..	1 728 171	.3	Partnership ----- farms ..	3 540 473	.2
Cropland: ----- farms ..	4 997	.5	Corporation: ----- farms ..	1 950 679	.1
Pasture or grazing only ----- farms ..	2 734	.6	Family held ----- farms ..	472	.7
Total woodland ----- farms ..	327	1.0	More than 10 stockholders ----- farms ..	1 221 413	.1
Pastureland and rangeland other than cropland and woodland pastured ----- farms ..	2 410	.5	10 or less stockholders ----- farms ..	21	3.1
Land in house lots, ponds, roads, wasteland, etc. ----- farms ..	5 619 555	(L)	Other than family held ----- farms ..	63	2.0
Irrigated land ----- farms ..	2 739	.6	More than 10 stockholders ----- farms ..	315 288	.1
Harvested cropland irrigated ----- farms ..	133 318	.6	10 or less stockholders ----- farms ..	29	2.3
Pasture and other land irrigated ----- farms ..	5 044	.6	Other—cooperative, estate or trust, institutional, etc. ----- farms ..	34	3.2
Land under federal acreage reduction programs: ----- farms ..	958 690	.3		91	2.1
Diverted under annual commodity programs ----- farms ..	4 722	.6		1 127 145	.1
Conservation Reserve or Wetlands Reserve Programs ----- farms ..	728 353	.3			
	1 895	.7	<b>HIRED FARM LABOR</b>		
	230 337	.5	Hired workers by days worked:		
			150 days or more ----- farms ..	1 896	2.8
			Less than 150 days ----- farms ..	5 431	1.4
				3 214	2.2
				15 534	3.7
			<b>INJURIES AND DEATHS</b>		
			Farm-related injuries:		
			Operator and family members ----- farms ..	129	1.8
			Hired workers ----- farms ..	152	1.7
				95	1.3
				199	.6
			Farm-related deaths:		
			Operator and family members ----- farms ..	3	10.2
			Hired workers ----- farms ..	(D)	(D)
				2	—
				(D)	(D)
			<b>FARMS BY SIZE</b>		
			1 to 9 acres -----	372	1.5
			10 to 49 acres -----	624	1.2
			50 to 69 acres -----	298	1.8
			70 to 99 acres -----	411	1.5
			100 to 139 acres -----	473	1.4
			140 to 179 acres -----	396	1.4
			180 to 219 acres -----	315	1.5
			220 to 259 acres -----	268	1.5
			260 to 499 acres -----	904	.9
			500 to 999 acres -----	710	.9
			1,000 to 1,999 acres -----	489	—
			2,000 acres or more -----	685	—
			<b>FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>		
			Cash grains (011) -----	417	1.2
			Field crops, except cash grains (013) -----	757	1.2
			Vegetables and melons (016) -----	107	2.3
			Fruits and tree nuts (017) -----	169	2.1
			Horticultural specialties (018) -----	127	2.0
			General farms, primarily crop (019) -----	132	2.2
			Livestock, except dairy, poultry, and animal specialties (021) -----	3 182	.6
			Dairy farms (024) -----	670	.6
			Poultry and eggs (025) -----	93	1.1
			Animal specialties (027) -----	265	1.7
			General farms, primarily livestock and animal specialties (029) -----	26	5.0
			<b>LIVESTOCK</b>		
			Cattle and calves inventory ----- farms ..	4 138	.5
			Beef cows ----- farms ..	792 524	.2
			Milk cows ----- farms ..	2 918	.6
				323 499	.3
				872	.6
				80 015	.2
			Cattle and calves sold ----- farms ..	4 191	.5
			Hogs and pigs inventory ----- farms ..	480 437	.2
			Hogs and pigs sold ----- farms ..	258 900	.2
				312	1.6
				37 774	1.2
				274	1.6
				55 719	1.3
				5 302	1.1
			Sheep and lambs of all ages inventory ----- farms ..	758	.9
			Sheep and lambs sold ----- farms ..	484 086	.2
				749	.8
				393 104	.3
			Horses and ponies inventory ----- farms ..	2 398	.6
			Horses and ponies sold ----- farms ..	15 293	.9
				479	1.2
				2 226	2.4

See footnotes at end of table.



**Table E. Reliability Estimates of Percent Change in State Totals: 1987 to 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Percent change from 1987 to 1992	Standard error of estimate	Percent change from 1987 to 1992	Standard error of estimate
Farms..... number..	-3.9	.9	.1	.8
Land in farms..... acres..	-3.7	.2	-5.4	.1
Average size of farm..... acres..	.3	1.0	-5.5	.8
Estimated market value of land and buildings <sup>1</sup> :				
Average per farm.....dollars..	14.9	2.8	12.1	3.2
Average per acre.....dollars..	15.5	2.8	20.0	3.4
Estimated market value of all machinery and equipment <sup>1</sup> :				
Average per farm.....dollars..	9.6	2.1	5.5	2.3
Farms by size:				
1 to 9 acres.....	-4.4	1.6	1.4	2.3
10 to 49 acres.....	-2.6	1.4	14.7	2.1
50 to 179 acres.....	-7.6	1.1	-1	1.3
180 to 499 acres.....	-3.7	1.1	-3.5	1.1
500 to 999 acres.....	-1.5	1.2	-4.4	1.3
1,000 to 1,999 acres.....	-2.7	-	-3.9	-
2,000 acres or more.....	3.7	-	4.6	-
Total cropland.....farms..	-4.4	.9	-4	.8
Harvested cropland.....acres..	3.2	.5	3.9	.5
Irrigated land.....farms..	-5.4	.9	-2.1	.8
.....acres..	-3.1	.5	-1.6	.5
Market value of agricultural products sold.....\$1,000..	17.4	.3	18.2	.3
Average per farm.....dollars..	22.1	1.2	18.1	1.0
Crops, including nursery and greenhouse crops.....\$1,000..	39.1	.6	42.4	.7
Livestock, poultry, and their products.....\$1,000..	11.6	.3	12.0	.2
Farms by value of sales:				
Less than \$2,500.....	-9.2	1.1	(X)	(X)
\$2,500 to \$4,999.....	-7.6	1.5	(X)	(X)
\$5,000 to \$9,999.....	-5	1.4	(X)	(X)
\$10,000 to \$24,999.....	-2.4	1.2	-2.4	1.2
\$25,000 to \$49,999.....	-2.4	1.4	-2.4	1.4
\$50,000 to \$99,999.....	-1.8	1.3	-1.8	1.3
\$100,000 to \$249,999.....	-2.3	.1	-2.3	.1
\$250,000 to \$499,999.....	24.3	-	24.3	-
\$500,000 or more.....	31.6	-	31.6	-
Total farm production expenses <sup>1</sup> .....\$1,000..	21.9	1.1	23.3	1.3
Average per farm.....dollars..	26.8	1.6	22.9	1.6
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup> .....farms..	-3.9	1.0	.3	1.1
Average per farm.....\$1,000..	4.3	2.8	4.5	2.4
.....dollars..	8.5	3.1	4.2	2.6
Operators by principal occupation:				
Farming.....	-1.3	.8	-2.0	.7
Other.....	-6.0	1.2	5.1	1.3
Operators by days worked off farm:				
Any.....	-6.3	4.7	1.1	5.1
200 days or more.....	-3.8	4.9	7.1	5.4
Livestock and poultry:				
Cattle and calves inventory.....farms..	-4.1	.9	-7	.8
.....number..	.6	.4	1.3	.4
Beef cows.....farms..	-2.3	.9	2.1	.9
.....number..	3.0	.5	4.4	.5
Milk cows.....farms..	-25.2	.8	-15.5	.8
.....number..	4.9	.4	5.5	.4
Cattle and calves sold.....farms..	-4.1	.8	-1.0	.8
.....number..	1.5	.4	2.4	.3
Hogs and pigs inventory.....farms..	-2.8	1.8	-2.2	2.2
.....number..	27.9	3.4	27.5	3.8
Hogs and pigs sold.....farms..	-	2.0	3.8	2.5
.....number..	27.2	2.7	30.5	3.0
Sheep and lambs inventory.....farms..	-11.4	1.1	-11.4	1.1
.....number..	-12.7	.4	-13.1	.3
Chickens 3 months old or older inventory.....farms..	-38.3	1.2	-43.6	1.4
.....number..	-14.9	(L)	-14.6	(L)
Broilers and other meat-type chickens sold.....farms..	-8.7	8.2	125.0	38.8
.....number..	-34.7	15.9	(D)	(D)
Selected crops harvested:				
Corn for silage or green chop.....farms..	-23.3	.8	-20.2	.8
.....acres..	-8.8	.6	-6.9	.6
.....tons, green..	-8.3	.5	-6.8	.5
Wheat for grain.....farms..	-25.5	.8	-22.6	.8
.....acres..	-7.3	.6	-6.5	.4
.....bushels..	-11.9	.6	-10.4	.6
Barley for grain.....farms..	-25.3	.7	-20.7	.7
.....acres..	-17.5	.6	-15.7	.6
.....bushels..	-17.1	.6	-14.8	.6
Oats for grain.....farms..	-13.7	1.3	-10.2	1.4
.....acres..	7.3	1.5	7.4	1.6
.....bushels..	-4.2	1.5	-5.5	1.5
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text).....farms..	-5.0	.9	-2.6	.8
.....acres..	1.7	.6	3.2	.6
.....tons, dry..	5.6	.6	7.6	.6
Land in orchards.....farms..	-8.7	1.5	5.3	2.6
.....acres..	-15.1	1.3	-7.4	1.7

<sup>1</sup>Data are based on a sample of farms.

**Table F. Reliability Estimates for the State and County Totals: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average size of farm		Average market value of land and buildings per farm <sup>1</sup>		Estimated market value of all machinery and equipment <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>13 520</b>	<b>.7</b>	<b>9 624 463</b>	<b>.1</b>	<b>712</b>	<b>.7</b>	<b>347 982</b>	<b>2.1</b>	<b>526 636</b>	<b>1.1</b>
Beaver .....	215	.4	192 288	.2	894	.5	290 607	2.7	13 072	7.7
Box Elder .....	1 085	.6	1 449 976	.1	1 336	.6	464 879	12.6	55 343	2.6
Cache .....	1 189	.6	267 924	.6	225	.8	263 915	5.8	58 421	3.9
Carbon .....	182	.8	291 860	.2	1 604	.8	457 355	6.0	6 000	9.6
Daggett .....	29	.3	21 958	.5	757	.6	419 810	5.7	1 658	2.2
Davis .....	582	.6	50 357	1.0	87	1.1	322 845	12.4	17 907	6.7
Duchesne .....	733	.9	399 011	.4	544	1.0	275 612	7.1	27 501	4.3
Emery .....	420	.6	240 535	.3	573	.7	209 940	3.9	13 608	6.5
Garfield .....	249	.6	137 530	.5	552	.8	441 225	4.0	9 475	5.2
Grand .....	88	1.7	63 116	.5	717	1.8	384 654	4.6	3 247	3.6
Iron .....	365	.7	434 183	.2	1 190	.7	481 928	4.1	19 005	4.5
Juab .....	203	.4	332 686	.2	1 639	.4	632 776	22.0	9 719	3.8
Kane .....	136	.3	209 819	.2	1 543	.4	563 983	10.5	4 464	7.3
Millard .....	612	.6	484 156	.2	791	.7	451 119	4.0	34 635	3.1
Morgan .....	258	.7	234 576	.3	909	.8	414 725	6.1	6 835	4.9
Piute .....	109	1.1	58 522	1.1	537	1.6	322 525	5.3	5 137	4.9
Rich .....	143	.4	493 073	.2	3 448	.4	861 753	9.2	10 550	4.0
Salt Lake .....	686	.9	107 663	.4	157	1.0	328 402	4.9	16 620	5.6
San Juan .....	206	.6	324 921	.3	1 577	.6	453 919	5.1	10 393	8.3
Sanpete .....	696	.6	447 463	.3	643	.7	327 858	5.5	30 916	4.9
Sevier .....	406	.6	158 189	.5	390	.8	222 098	3.5	18 535	7.6
Summit .....	419	.6	373 582	.3	892	.7	507 088	7.4	13 086	8.1
Tooele .....	300	.7	437 238	.2	1 457	.8	360 822	9.2	12 292	8.1
Uintah .....	716	.9	1 294 703	.1	1 808	.9	288 422	3.8	23 237	7.1
Utah .....	1 696	.7	450 315	.3	266	.8	260 092	3.2	55 420	3.0
Wasatch .....	274	.7	139 347	.4	509	.9	648 324	16.2	8 392	8.9
Washington .....	389	.7	167 374	.6	430	.9	333 929	6.4	8 875	4.9
Wayne .....	189	.5	105 576	.4	559	.6	280 672	6.9	7 156	9.2
Weber .....	945	.6	256 522	.4	271	.7	231 593	5.6	25 139	4.2
Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>			
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total farm production expenses			
							Farms		Value	
							Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>39 126</b>	<b>1.3</b>	<b>725 159</b>	<b>.2</b>	<b>53 636</b>	<b>.7</b>	<b>13 518</b>	<b>.7</b>	<b>602 812</b>	<b>.5</b>
Beaver .....	60 799	7.8	20 281	.3	94 332	.5	215	1.0	16 759	2.2
Box Elder .....	51 054	2.7	84 225	.2	77 627	.6	1 085	.8	69 015	.9
Cache .....	49 093	3.9	87 898	.2	73 926	.7	1 190	.8	69 496	1.1
Carbon .....	33 147	9.6	3 046	1.5	16 738	1.7	181	1.2	3 235	7.5
Daggett .....	57 169	3.6	1 328	.7	45 802	.7	29	2.9	1 250	.9
Davis .....	31 471	6.9	34 086	.3	58 567	.7	582	.9	25 576	2.4
Duchesne .....	37 518	4.5	22 275	.7	30 388	1.1	733	1.2	18 384	3.0
Emery .....	32 400	6.6	8 169	.5	19 449	.8	420	.9	7 872	10.2
Garfield .....	38 051	5.3	7 562	.9	30 371	1.0	249	.9	6 978	3.7
Grand .....	36 902	5.0	2 347	1.9	26 673	2.6	88	3.5	1 966	2.8
Iron .....	52 210	4.6	25 211	.3	69 073	.7	364	.8	20 354	1.5
Juab .....	48 113	3.9	9 195	.4	45 298	.5	202	.9	7 650	3.4
Kane .....	32 820	7.4	2 721	.9	20 009	1.0	136	1.1	2 419	12.0
Millard .....	56 593	3.3	59 497	.2	97 218	.7	612	.9	48 829	1.0
Morgan .....	26 494	4.9	10 456	.6	40 529	.9	258	.9	8 267	2.7
Piute .....	47 132	5.4	6 026	.9	55 288	1.4	109	2.1	4 268	3.6
Rich .....	73 773	4.2	15 798	.3	110 474	.5	143	1.1	11 978	.8
Salt Lake .....	24 658	5.9	20 155	.5	29 381	1.0	685	1.0	16 872	4.4
San Juan .....	50 452	8.4	8 990	.5	43 641	.7	206	1.2	8 864	11.4
Sanpete .....	44 356	5.0	75 914	.2	109 072	.6	697	.8	65 658	1.3
Sevier .....	45 653	7.6	30 656	.3	75 507	.7	406	1.0	24 244	1.1
Summit .....	31 232	8.1	14 927	.5	35 625	.8	419	1.0	11 409	5.0
Tooele .....	40 973	8.1	14 401	.4	48 004	.8	300	1.1	12 884	2.9
Uintah .....	32 821	7.3	18 408	.7	25 710	1.1	716	1.1	16 717	4.7
Utah .....	32 949	3.2	87 662	.2	51 688	.8	1 695	.9	75 529	1.1
Wasatch .....	32 030	9.3	7 736	.7	28 234	1.0	274	.9	7 656	7.4
Washington .....	22 814	5.0	6 763	1.2	17 387	1.4	389	.9	6 016	4.5
Wayne .....	37 861	9.2	8 713	.7	46 102	.9	189	.9	6 890	7.0
Weber .....	26 574	4.3	30 707	.4	32 494	.7	946	.8	25 779	2.8

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 – Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Livestock and poultry purchased				Feed for livestock and poultry				Seeds, bulbs, plants, and trees			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>5 333</b>	<b>2.2</b>	<b>103 978</b>	<b>1.4</b>	<b>7 544</b>	<b>1.7</b>	<b>135 079</b>	<b>.6</b>	<b>5 400</b>	<b>2.1</b>	<b>9 980</b>	<b>1.7</b>
Beaver .....	63	12.6	3 786	.9	108	12.0	3 292	4.4	78	8.9	246	.4
Box Elder .....	372	7.5	16 424	4.0	542	5.9	10 385	2.3	565	5.1	1 429	6.8
Cache .....	482	6.7	14 907	2.3	700	4.8	18 245	2.0	654	4.5	859	5.0
Carbon .....	100	13.9	367	9.3	102	17.0	659	11.7	38	33.4	30	30.6
Daggett .....	19	3.1	213	1.2	21	2.2	149	.4	5	6.4	2	6.9
Davis .....	146	14.9	6 383	1.6	260	9.3	3 115	1.8	216	8.0	963	5.9
Duchesne .....	341	9.0	2 744	8.4	496	6.3	2 850	4.8	248	11.5	251	11.2
Emery .....	182	12.0	1 176	35.9	286	6.5	1 760	17.3	142	10.7	87	5.8
Garfield .....	99	15.6	1 318	14.1	126	14.5	800	7.1	117	14.9	109	4.6
Grand .....	25	4.4	326	1.2	39	4.1	289	6.0	32	5.3	23	4.8
Iron .....	151	12.9	1 602	5.2	186	8.8	2 045	2.5	178	11.0	691	3.0
Juab .....	72	17.4	602	5.5	106	13.1	593	6.6	108	14.9	89	11.7
Kane .....	56	9.2	402	23.4	89	6.3	325	7.1	38	11.1	11	7.2
Millard .....	240	9.4	11 671	1.1	290	8.4	5 975	1.0	315	8.0	960	4.9
Morgan .....	113	15.9	972	4.2	144	13.5	2 041	2.9	69	24.9	60	8.7
Piute .....	52	10.0	466	10.6	74	6.5	1 388	4.0	52	9.9	55	19.1
Rich .....	76	3.1	1 706	2.0	106	4.7	1 569	1.2	52	9.9	66	6.7
Salt Lake .....	220	14.6	985	11.1	316	11.0	3 131	4.7	132	19.1	385	16.3
San Juan .....	60	19.2	1 796	27.3	114	9.7	871	30.6	61	16.2	104	8.5
Sanpete .....	321	7.8	9 673	1.9	446	6.4	31 179	.9	323	8.6	314	12.1
Sevier .....	187	13.2	7 701	1.0	249	8.9	6 554	1.0	200	8.4	240	9.9
Summit .....	179	11.4	2 156	20.0	272	7.1	2 779	3.3	55	23.8	52	31.6
Tooele .....	103	18.0	745	10.2	162	13.1	4 666	1.6	88	17.8	61	6.4
Uintah .....	318	9.4	1 872	11.0	455	6.2	2 762	7.2	285	9.9	251	10.1
Utah .....	632	6.7	6 889	7.7	870	4.7	17 660	1.0	663	5.8	1 591	3.3
Wasatch .....	125	13.8	1 685	28.9	186	9.3	1 915	9.1	75	23.3	29	17.0
Washington .....	143	11.6	759	16.1	217	7.5	802	7.1	130	12.4	90	8.4
Wayne .....	78	16.9	992	16.4	99	13.1	1 626	2.7	92	12.2	63	6.6
Weber .....	378	8.2	3 661	9.3	483	6.9	5 652	2.8	389	7.5	866	2.3

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>6 272</b>	<b>1.9</b>	<b>17 412</b>	<b>1.8</b>	<b>5 917</b>	<b>1.9</b>	<b>8 569</b>	<b>2.2</b>	<b>12 670</b>	<b>.9</b>	<b>34 722</b>	<b>1.0</b>
Beaver .....	74	19.0	228	9.7	93	10.8	226	2.0	206	3.5	1 342	1.9
Box Elder .....	621	4.4	4 646	3.7	635	5.0	1 271	3.1	1 018	1.7	3 614	2.4
Cache .....	655	4.8	1 365	5.5	693	4.5	742	6.0	1 135	1.9	3 315	3.4
Carbon .....	78	17.7	104	13.2	68	1.1	47	10.0	172	4.5	357	13.0
Daggett .....	19	3.5	39	1.6	14	3.5	6	4.7	29	2.9	94	1.9
Davis .....	295	7.6	863	7.5	305	6.9	466	7.2	535	2.7	1 382	5.4
Duchesne .....	351	8.6	831	7.4	123	17.5	79	14.2	668	3.3	1 602	5.2
Emery .....	211	9.6	308	8.2	217	8.2	127	14.2	390	3.0	705	6.7
Garfield .....	107	10.4	163	8.2	78	20.9	57	9.6	234	4.8	675	6.6
Grand .....	43	4.9	34	6.7	46	4.9	32	4.0	82	3.6	175	3.5
Iron .....	206	8.4	915	3.1	166	11.4	603	6.7	330	4.0	1 690	3.5
Juab .....	82	17.6	259	9.5	87	15.1	186	3.3	193	3.3	747	5.4
Kane .....	48	9.0	36	11.2	41	12.1	26	6.5	127	3.1	259	5.3
Millard .....	383	6.2	2 050	6.7	410	5.9	1 273	5.2	592	2.0	2 343	4.0
Morgan .....	58	23.5	80	5.8	66	24.3	36	12.8	238	4.7	480	6.5
Piute .....	36	11.7	97	2.5	45	10.6	33	5.1	109	2.1	363	3.7
Rich .....	52	9.0	194	6.2	34	12.9	43	19.8	140	1.7	888	.9
Salt Lake .....	256	12.4	588	15.6	220	14.0	230	5.8	646	2.8	1 053	5.0
San Juan .....	56	12.5	190	20.5	93	10.4	258	25.7	200	2.2	879	11.7
Sanpete .....	249	11.2	381	10.5	368	7.4	376	15.2	675	1.8	2 831	5.4
Sevier .....	186	11.7	304	6.2	196	10.9	180	11.7	396	1.8	1 122	3.1
Summit .....	130	14.3	130	21.7	79	18.9	117	16.5	396	2.4	654	4.9
Tooele .....	59	29.0	125	6.2	65	26.4	45	10.0	298	1.1	709	9.1
Uintah .....	348	8.8	719	10.6	283	10.8	198	10.0	684	1.9	1 431	4.8
Utah .....	900	4.6	1 828	4.3	883	4.6	1 587	7.4	1 577	1.6	3 252	2.2
Wasatch .....	97	21.0	51	14.8	81	23.6	34	22.3	247	5.2	428	13.0
Washington .....	182	8.7	211	21.1	103	12.4	70	12.3	375	2.3	474	5.6
Wayne .....	97	13.3	111	17.9	78	14.6	42	7.6	178	3.6	542	5.1
Weber .....	393	7.8	561	6.1	347	8.6	180	6.7	800	3.0	1 321	4.6

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 – Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>7 326</b>	<b>1.7</b>	<b>15 448</b>	<b>1.5</b>	<b>5 860</b>	<b>1.9</b>	<b>72 014</b>	<b>.9</b>	<b>1 791</b>	<b>4.3</b>	<b>6 866</b>	<b>4.6</b>
Beaver .....	119	11.6	973	5.6	74	8.2	1 593	.8	23	32.7	89	16.9
Box Elder .....	696	4.7	1 859	2.0	521	6.5	6 698	2.6	202	11.7	1 429	18.8
Cache .....	798	4.1	1 372	3.5	587	5.0	6 388	1.5	159	14.0	406	14.8
Carbon .....	59	24.2	38	19.6	33	30.6	212	8.4	15	53.5	19	63.6
Daggett .....	23	2.9	15	1.6	15	3.3	85	.4	5	6.4	4	.9
Davis .....	295	8.6	348	4.3	216	9.9	4 640	7.1	53	21.3	343	13.6
Duchesne .....	526	5.0	454	6.3	275	10.2	1 051	4.5	77	24.3	177	5.1
Emery .....	200	10.5	110	6.1	179	9.0	590	3.9	46	29.7	53	20.4
Garfield .....	109	11.1	155	4.9	87	17.8	651	4.8	27	2.5	75	11.3
Grand .....	43	4.4	35	3.6	36	4.5	237	4.3	10	10.9	24	16.0
Iron .....	183	10.4	1 804	3.0	162	11.1	2 739	2.9	60	21.6	230	4.2
Juab .....	89	15.6	396	8.3	93	16.7	1 136	1.4	21	29.4	85	10.9
Kane .....	57	8.8	33	10.5	52	7.5	150	3.3	20	19.7	36	21.9
Millard .....	326	7.0	1 692	8.6	251	9.1	7 067	1.2	75	23.3	379	26.8
Morgan .....	133	13.8	134	4.1	91	17.6	1 069	3.0	28	30.4	261	5.9
Piute .....	53	8.7	73	2.5	54	8.8	330	2.1	10	25.6	31	.1
Rich .....	89	6.1	195	4.9	95	5.6	2 111	2.8	27	13.3	195	4.6
Salt Lake .....	335	9.6	386	4.2	250	12.3	3 600	4.8	90	23.5	176	23.1
San Juan .....	131	8.3	118	29.4	85	15.1	879	10.5	15	25.2	58	4.6
Sanpete .....	417	7.2	840	6.0	400	6.3	4 815	1.9	131	14.8	566	3.5
Sevier .....	213	11.5	353	9.8	216	8.9	1 846	2.2	60	27.1	211	15.7
Summit .....	222	9.0	184	8.2	205	7.4	1 324	2.7	58	23.7	108	3.7
Tooele .....	155	13.0	431	8.2	134	14.0	2 081	4.9	30	39.4	68	2.5
Uintah .....	378	8.0	408	7.0	261	10.5	1 398	7.0	125	17.3	237	9.3
Utah .....	860	5.1	2 093	4.0	804	5.4	14 125	3.0	228	12.4	1 061	6.5
Wasatch .....	159	9.3	189	18.6	111	15.4	640	8.2	44	34.7	59	36.8
Washington .....	129	13.1	139	20.6	133	11.4	475	7.7	42	28.4	147	5.1
Wayne .....	101	11.9	186	29.0	94	14.4	794	3.7	44	24.5	115	9.7
Weber .....	428	8.0	437	3.5	346	8.0	3 288	5.0	66	21.5	225	5.7

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest expense			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>11 133</b>	<b>1.1</b>	<b>39 227</b>	<b>1.4</b>	<b>4 665</b>	<b>2.4</b>	<b>8 726</b>	<b>2.6</b>	<b>5 460</b>	<b>2.0</b>	<b>42 771</b>	<b>1.5</b>
Beaver .....	188	4.3	1 012	4.3	96	15.5	222	3.8	126	9.5	1 692	3.2
Box Elder .....	916	2.8	4 515	6.1	371	8.3	1 132	4.9	511	6.5	5 095	3.9
Cache .....	1 033	2.7	4 515	3.1	553	6.0	1 149	8.7	527	5.9	4 204	4.7
Carbon .....	179	1.2	304	9.9	32	33.6	38	41.9	68	21.0	238	12.8
Daggett .....	28	3.0	102	2.4	10	2.9	6	1.0	21	3.2	190	2.1
Davis .....	457	4.6	1 292	6.7	192	12.4	268	9.9	123	12.3	996	4.8
Duchesne .....	663	2.8	1 875	6.4	176	13.4	212	13.3	370	7.5	2 255	7.4
Emery .....	368	3.9	624	5.0	88	15.8	73	12.5	132	11.8	572	8.5
Garfield .....	201	7.7	476	5.4	92	16.8	109	8.3	145	11.1	744	12.0
Grand .....	70	3.8	142	2.9	29	6.4	31	6.0	43	4.2	218	3.5
Iron .....	268	6.7	1 686	4.1	106	13.9	469	7.8	185	9.9	2 342	4.8
Juab .....	147	10.6	763	6.7	75	19.3	140	10.5	81	17.9	691	13.6
Kane .....	113	3.5	241	4.8	45	11.4	28	5.0	59	10.3	207	13.0
Millard .....	502	4.5	2 829	2.6	308	7.8	952	10.3	359	7.3	3 421	6.7
Morgan .....	201	7.9	694	11.2	87	21.5	149	11.5	63	20.5	573	3.8
Piute .....	99	3.8	281	4.6	40	10.7	75	8.5	71	6.8	428	5.6
Rich .....	125	3.1	725	1.7	63	8.7	271	3.8	83	4.7	1 232	1.3
Salt Lake .....	545	5.2	1 439	13.1	200	14.1	217	20.2	90	19.3	877	6.5
San Juan .....	182	5.1	680	10.7	48	11.2	140	19.1	114	11.2	827	11.9
Sanpete .....	593	3.3	2 654	6.4	278	10.2	615	15.9	375	6.8	2 915	1.7
Sevier .....	342	5.3	1 208	8.9	149	14.8	240	17.1	215	10.5	1 604	11.5
Summit .....	346	4.6	678	12.8	79	17.4	112	9.9	177	10.3	945	12.3
Tooele .....	244	6.0	865	4.4	118	12.3	152	8.9	103	18.0	671	8.1
Uintah .....	610	3.5	1 458	4.4	175	14.3	225	9.0	284	8.4	2 182	9.2
Utah .....	1 334	2.8	4 658	3.9	662	6.4	906	7.8	562	6.1	4 584	4.9
Wasatch .....	210	8.8	599	15.2	76	20.8	104	44.6	86	21.9	458	6.6
Washington .....	316	4.7	616	9.4	123	12.6	187	9.0	130	11.8	604	11.0
Wayne .....	162	5.8	505	8.4	101	13.1	74	9.2	110	11.5	662	21.5
Weber .....	691	4.1	1 791	4.2	293	9.7	430	7.3	247	11.3	1 346	7.9

See footnotes at end of table.



**Table F. Reliability Estimates for the State and County Totals: 1992 – Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>3 924</b>	<b>2.6</b>	<b>17 742</b>	<b>2.7</b>	<b>12 801</b>	<b>.9</b>	<b>15 548</b>	<b>1.5</b>	<b>12 467</b>	<b>.9</b>	<b>74 729</b>	<b>.9</b>
Beaver .....	37	21.6	214	2.6	214	1.0	279	8.5	213	1.0	1 564	10.7
Box Elder .....	345	7.3	2 384	5.9	1 017	1.9	1 358	3.2	973	2.2	6 773	1.6
Cache .....	486	6.4	2 394	7.9	1 156	1.3	1 350	4.3	1 139	1.6	8 285	3.6
Carbon .....	47	27.5	186	12.1	181	1.2	197	14.2	164	6.0	439	4.2
Daggett .....	7	4.6	21	1.2	29	2.9	36	2.5	28	2.7	289	.5
Davis .....	190	10.7	931	9.9	526	3.0	592	6.5	527	2.9	2 995	1.1
Duchesne .....	227	11.8	516	7.4	698	2.3	716	7.7	688	2.9	2 771	3.1
Emery .....	125	12.3	298	15.4	412	1.6	303	8.4	399	3.0	1 088	6.8
Garfield .....	62	21.1	290	15.6	242	2.4	273	11.6	226	6.4	1 083	5.4
Grand .....	16	4.4	54	1.2	86	3.6	92	3.8	82	3.4	255	4.0
Iron .....	119	14.8	751	4.2	346	2.8	546	2.8	321	4.9	2 240	2.1
Juab .....	53	22.4	390	26.4	192	3.8	296	8.7	183	5.5	1 277	5.0
Kane .....	43	12.2	204	52.6	132	1.5	111	5.7	126	2.5	349	14.3
Millard .....	189	11.8	989	10.2	584	2.5	772	9.7	584	2.3	6 457	2.9
Morgan .....	54	27.3	300	7.0	240	4.7	289	11.2	218	6.6	1 128	3.9
Piute .....	15	11.8	43	10.1	109	2.1	123	4.3	103	2.9	483	3.8
Rich .....	44	11.3	290	10.2	139	1.4	350	1.7	138	1.5	2 143	1.2
Salt Lake .....	162	16.4	586	13.5	616	3.3	653	6.8	664	1.4	2 567	7.4
San Juan .....	39	17.8	633	38.3	196	3.3	221	9.3	196	3.2	1 209	9.3
Sanpete .....	221	11.9	1 151	11.5	691	.8	852	4.6	645	2.4	6 498	4.1
Sevier .....	130	16.8	408	10.0	384	2.7	358	7.5	383	3.0	1 915	1.5
Summit .....	109	15.5	387	7.7	389	2.5	392	6.7	368	3.3	1 390	3.4
Tooele .....	72	20.6	315	20.6	297	1.1	400	3.1	262	3.7	1 551	6.7
Uintah .....	151	14.5	484	12.9	685	2.1	645	5.4	650	2.9	2 447	8.1
Utah .....	504	7.0	1 849	5.6	1 555	1.9	2 185	3.7	1 537	1.9	11 260	1.3
Wasatch .....	114	16.2	359	20.5	255	4.5	418	20.5	235	6.8	686	9.0
Washington .....	63	16.6	237	13.9	376	1.8	368	9.1	375	2.5	838	6.7
Wayne .....	31	24.1	87	16.4	181	3.0	190	6.5	176	4.7	903	4.5
Weber .....	269	10.6	991	7.3	873	2.2	1 181	6.7	864	2.5	3 847	1.9
	Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>				Total cropland				Harvested cropland			
	Farms		Value		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>13 518</b>	<b>.7</b>	<b>123 215</b>	<b>1.8</b>	<b>11 700</b>	<b>.6</b>	<b>2 093 779</b>	<b>.3</b>	<b>10 173</b>	<b>.6</b>	<b>1 043 347</b>	<b>.3</b>
Beaver .....	215	1.0	3 331	7.7	183	.8	39 958	.9	165	.9	27 149	.8
Box Elder .....	1 085	.8	14 334	5.4	934	.6	363 843	.3	847	.7	171 708	.3
Cache .....	1 190	.8	18 050	3.7	1 069	.6	175 063	.7	994	.7	120 044	.7
Carbon .....	181	1.2	327	(H)	158	1.1	18 537	2.8	122	1.6	5 592	1.3
Daggett .....	29	2.9	(D)	(D)	24	2.0	(D)	(D)	21	2.2	3 544	.9
Davis .....	582	.9	9 181	5.3	506	.7	27 242	1.2	427	.9	18 573	1.1
Duchesne .....	733	1.2	4 407	12.1	661	1.0	124 081	1.0	545	1.1	57 788	.7
Emery .....	420	.9	(D)	(D)	391	.7	55 447	.7	348	.8	18 877	.7
Garfield .....	249	.9	1 173	20.5	222	.8	41 286	1.4	206	.9	16 819	1.4
Grand .....	88	3.5	381	5.7	80	2.0	5 293	2.9	68	2.4	2 355	3.7
Iron .....	364	.8	4 203	6.5	305	.9	75 427	.8	275	1.0	48 916	.6
Juab .....	202	.9	1 728	17.0	185	.7	71 294	.9	165	.8	25 270	.8
Kane .....	136	1.1	571	27.8	101	1.0	12 296	2.3	80	1.4	3 337	1.7
Millard .....	612	.9	10 202	5.2	549	.7	181 377	.5	498	.8	86 933	.6
Morgan .....	258	.9	2 343	22.8	198	1.2	17 012	2.0	180	1.3	9 474	1.3
Piute .....	109	2.1	1 354	5.7	103	1.3	20 968	2.2	86	1.8	10 923	1.8
Rich .....	143	1.1	3 669	2.6	134	.7	78 618	.9	126	.9	45 631	.7
Salt Lake .....	685	1.0	3 559	17.1	495	1.1	(D)	(D)	377	1.2	26 308	.8
San Juan .....	206	1.2	2 525	17.9	173	.9	133 713	.3	140	1.1	48 031	.4
Sanpete .....	697	.8	9 396	4.5	618	.7	107 147	.9	527	.8	49 073	.8
Sevier .....	406	1.0	5 302	7.0	367	.8	50 994	1.2	335	.9	31 129	.9
Summit .....	419	1.0	3 025	10.9	341	.9	36 967	1.3	282	1.1	17 217	1.3
Tooele .....	300	1.1	1 504	15.2	247	1.0	37 063	1.5	207	1.3	13 882	1.1
Uintah .....	716	1.1	2 260	18.2	635	1.0	(D)	(D)	519	1.1	42 273	.9
Utah .....	1 695	.9	11 543	3.7	1 466	.8	151 347	.6	1 289	.8	83 047	.5
Wasatch .....	274	.9	1 131	25.2	240	1.0	17 547	1.9	208	1.2	10 130	1.5
Washington .....	389	.9	839	27.4	322	.9	32 612	2.3	255	1.2	8 515	2.9
Wayne .....	189	.9	1 643	17.2	169	.8	(D)	(D)	164	.9	13 039	.9
Weber .....	946	.8	4 938	8.9	824	.7	50 283	1.7	717	.8	27 860	.9

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 – Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Irrigated land				Livestock and poultry							
	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Farms		Total		Farms		Total	
					Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>10 901</b>	<b>.7</b>	<b>1 142 514</b>	<b>.4</b>	<b>7 530</b>	<b>.6</b>	<b>860 830</b>	<b>.3</b>	<b>5 306</b>	<b>.6</b>	<b>356 971</b>	<b>.3</b>
Beaver .....	180	.8	33 519	.7	137	1.2	30 512	.4	114	1.4	13 693	.6
Box Elder .....	786	.7	120 583	.4	505	.9	92 955	.3	309	1.1	34 303	.6
Cache .....	910	.7	87 475	.7	716	.8	74 100	.6	275	1.6	8 844	2.2
Carbon .....	152	1.1	7 895	1.9	105	1.8	10 612	1.4	93	2.0	(D)	(D)
Daggett .....	24	2.0	6 891	1.7	23	2.2	3 583	2.1	18	2.8	(D)	(D)
Davis .....	496	.8	20 965	1.1	206	1.6	13 057	1.3	129	2.2	3 616	2.8
Duchesne .....	664	1.0	117 280	.7	570	1.1	58 821	.9	450	1.2	30 794	1.0
Emery .....	383	.7	31 669	.8	309	.9	25 455	.6	269	1.0	14 770	.7
Garfield .....	230	.7	29 231	1.3	182	1.2	23 525	1.0	151	1.4	14 053	1.0
Grand .....	75	2.2	3 096	3.1	39	3.7	5 444	2.7	30	4.1	(D)	(D)
Iron .....	295	1.0	51 857	.6	194	1.5	20 806	.6	154	1.7	9 261	1.0
Juab .....	150	.9	20 097	.8	124	1.3	16 801	.5	109	1.4	9 368	.5
Kane .....	94	1.1	4 999	1.2	106	1.0	9 603	1.0	89	1.2	6 145	1.2
Millard .....	506	.8	88 841	.6	354	.9	64 993	.3	261	1.1	20 284	.5
Morgan .....	185	1.3	7 960	1.6	137	1.7	8 141	1.9	82	2.6	2 750	2.9
Piute .....	94	1.5	13 789	2.0	86	1.7	12 040	1.0	72	2.0	5 744	1.4
Rich .....	125	.9	56 389	.9	113	1.2	43 145	.4	103	1.3	28 121	.4
Salt Lake .....	482	1.1	16 299	1.2	225	1.8	10 331	1.1	133	2.4	4 102	1.1
San Juan .....	77	2.1	5 491	1.8	112	1.5	16 595	.9	104	1.6	10 573	.8
Sanpete .....	568	.8	99 061	.8	388	1.0	46 626	.7	297	1.3	16 578	1.2
Sevier .....	370	.8	43 919	.8	259	1.2	48 241	.5	173	1.6	12 673	1.2
Summit .....	333	.9	29 417	1.1	268	1.2	22 671	.7	207	1.4	8 991	1.1
Tooele .....	220	1.2	16 479	1.9	186	1.4	18 652	.9	160	1.5	12 020	.7
Uintah .....	618	1.0	70 011	.9	488	1.1	51 438	.7	403	1.2	29 617	.9
Utah .....	1 397	.8	83 601	.6	766	1.0	58 796	.7	494	1.2	21 232	1.0
Wasatch .....	239	1.0	15 000	1.3	151	1.6	11 503	1.4	91	2.4	3 843	2.2
Washington .....	305	1.0	11 987	2.3	233	1.3	15 300	1.4	192	1.5	8 328	1.2
Wayne .....	165	.9	16 955	.7	118	1.4	17 638	1.0	103	1.6	9 019	1.2
Weber .....	778	.7	31 758	.9	430	1.1	29 446	1.0	241	1.6	6 293	2.3

Geographic area	Livestock and poultry – Con.											
	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory			
	Farms		Total		Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>1 082</b>	<b>.7</b>	<b>80 389</b>	<b>.2</b>	<b>727</b>	<b>1.3</b>	<b>43 017</b>	<b>1.1</b>	<b>1 721</b>	<b>.9</b>	<b>519 745</b>	<b>.3</b>
Beaver .....	25	3.1	2 966	.5	10	7.7	1 124	5.7	8	10.0	4 734	1.0
Box Elder .....	93	1.5	8 914	.3	56	3.5	3 202	4.4	119	2.3	50 706	.5
Cache .....	255	1.0	22 320	.3	50	4.1	8 468	1.0	62	3.7	7 141	3.0
Carbon .....	2	21.6	(D)	(D)	8	8.4	99	5.2	45	3.4	9 530	1.1
Daggett .....	1	–	(D)	(D)	–	–	–	–	6	6.2	710	12.0
Davis .....	22	4.1	975	1.9	17	7.3	1 033	14.1	42	4.2	5 026	1.0
Duchesne .....	79	2.8	2 848	1.1	46	4.7	768	6.7	93	3.0	16 175	1.8
Emery .....	18	4.1	623	.9	33	5.0	467	7.7	64	2.9	8 367	1.5
Garfield .....	12	4.9	169	.4	14	8.4	90	5.8	38	4.4	4 451	5.9
Grand .....	5	14.2	(D)	(D)	1	30.5	(D)	(D)	6	7.1	(D)	(D)
Iron .....	17	5.1	1 019	.1	18	5.1	(D)	(D)	111	2.2	57 088	.9
Juab .....	10	5.7	145	2.2	6	10.3	42	10.8	28	4.3	23 633	.5
Kane .....	9	6.9	10	7.3	5	7.8	126	1.5	18	3.8	6 332	.1
Millard .....	44	2.8	2 884	.7	44	3.9	2 931	3.5	43	3.4	6 029	.8
Morgan .....	20	4.1	1 499	1.5	13	6.9	78	7.4	44	3.4	17 169	.4
Piute .....	15	4.4	1 748	.1	3	21.5	16	12.4	17	6.2	6 661	2.5
Rich .....	7	7.3	15	3.4	–	–	–	–	17	4.0	20 192	.3
Salt Lake .....	23	4.6	1 526	.7	43	4.5	1 252	8.8	96	2.7	8 858	.9
San Juan .....	9	6.9	83	1.5	9	8.7	(D)	(D)	10	8.5	254	5.5
Sanpete .....	47	2.5	6 412	.7	35	4.9	1 183	2.3	206	1.5	88 907	.7
Sevier .....	32	3.5	3 534	.3	19	7.3	667	12.7	54	3.3	11 153	1.7
Summit .....	26	3.2	1 925	.1	17	7.0	(D)	(D)	97	2.4	43 808	.6
Tooele .....	17	4.5	410	.9	36	4.7	2 676	5.3	47	3.8	21 054	.2
Uintah .....	50	3.5	1 666	2.5	51	4.4	981	4.3	134	2.6	24 668	1.9
Utah .....	100	2.3	8 737	.5	115	2.8	6 793	4.5	143	2.4	34 902	.6
Wasatch .....	23	4.0	1 810	.6	13	8.3	125	17.5	43	3.8	18 019	.4
Washington .....	32	4.8	153	1.7	16	7.0	195	6.1	22	6.2	(D)	(D)
Wayne .....	16	3.3	1 227	.1	14	6.8	2 396	1.7	50	2.9	11 991	2.9
Weber .....	73	2.0	6 687	.5	35	4.7	2 237	2.2	58	3.5	6 541	.7

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 – Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry – Con.									
	Hens and pullets of laying age inventory					Broilers and other meat-type chickens sold				
	Farms		Total			Farms		Total		
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>617</b>	<b>1.4</b>	<b>1 578 523</b>	<b>–</b>	<b>21</b>	<b>6.4</b>	<b>5 091</b>	<b>10.4</b>		
Beaver .....	5	12.4	115	13.8	–	–	–	–	–	–
Box Elder .....	34	5.0	726	7.8	1	29.4	(D)	(D)	–	–
Cache .....	34	5.1	555	5.8	5	12.4	223	16.9	–	–
Carbon .....	10	8.7	102	8.7	–	–	–	–	–	–
Daggett .....	1	–	(D)	(D)	–	–	–	–	–	–
Davis .....	28	5.0	525	5.9	–	–	–	–	–	–
Duchesne .....	44	5.0	720	6.9	–	–	–	–	–	–
Emery .....	19	6.7	449	8.5	–	–	–	–	–	–
Garfield .....	12	7.0	161	7.0	–	–	–	–	–	–
Grand .....	8	9.5	106	11.0	–	–	–	–	–	–
Iron .....	13	9.3	560	19.4	–	–	–	–	–	–
Juab .....	3	10.7	70	6.9	1	50.0	(D)	(D)	–	–
Kane .....	14	5.6	219	8.2	–	–	–	–	–	–
Millard .....	34	4.5	684	4.8	–	–	–	–	–	–
Morgan .....	3	15.1	31	13.7	–	–	–	–	–	–
Piute .....	3	15.9	57	5.0	–	–	–	–	–	–
Rich .....	3	–	114	–	–	–	–	–	–	–
Salt Lake .....	46	4.4	1 992	17.7	5	14.1	559	5.0	–	–
San Juan .....	8	9.9	220	10.8	–	–	–	–	–	–
Sanpete .....	15	7.3	239	9.4	–	–	–	–	–	–
Sevier .....	13	8.4	265	8.6	–	–	–	–	–	–
Summit .....	13	9.1	208	9.4	–	–	–	–	–	–
Tooele .....	28	5.5	(D)	(D)	–	–	–	–	–	–
Uintah .....	40	4.9	507	5.4	–	–	–	–	–	–
Utah .....	94	2.8	991 911	(L)	2	15.7	(D)	(D)	–	–
Wasatch .....	13	9.0	227	16.0	–	–	–	–	–	–
Washington .....	34	4.9	(D)	(D)	1	26.9	(D)	(D)	–	–
Wayne .....	5	13.3	85	16.3	–	–	–	–	–	–
Weber .....	40	4.2	2 682	.9	6	10.6	3 945	13.3	–	–

  

Geographic area	Selected crops harvested											
	Corn for silage or green chop					Wheat for grain						
	Farms		Acres		Quantity	Farms		Acres		Quantity		
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, green	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	
<b>Utah</b> .....	<b>1 037</b>	<b>.7</b>	<b>41 446</b>	<b>.4</b>	<b>793 122</b>	<b>.3</b>	<b>1 274</b>	<b>.7</b>	<b>177 360</b>	<b>.3</b>	<b>6 295 501</b>	<b>.4</b>
Beaver .....	23	3.0	1 376	1.3	22 505	1.4	7	6.0	280	1.6	19 280	1.9
Box Elder .....	130	1.4	6 481	.7	139 182	.6	401	1.0	71 917	.5	2 636 981	.7
Cache .....	165	1.3	6 170	.7	126 566	.7	252	1.5	21 285	1.1	892 134	1.2
Carbon .....	4	–	107	–	544	–	6	11.2	52	13.9	2 100	8.5
Daggett .....	–	–	–	–	–	–	–	–	–	–	–	–
Davis .....	35	2.9	1 525	1.6	40 405	.9	83	2.3	2 858	2.1	196 564	2.6
Duchesne .....	40	3.0	1 280	2.6	18 989	2.8	11	9.0	307	13.4	26 159	15.2
Emery .....	56	2.0	990	2.1	12 295	1.3	22	4.9	200	6.1	10 037	6.0
Garfield .....	–	–	–	–	–	–	5	–	433	–	23 345	–
Grand .....	4	10.0	67	11.9	870	9.2	–	–	–	–	–	–
Iron .....	14	–	865	–	13 006	–	5	11.0	229	12.4	11 060	8.4
Juab .....	25	3.7	590	1.8	9 111	1.7	47	2.8	5 333	.9	176 091	.7
Kane .....	1	–	(D)	(D)	(D)	(D)	5	–	156	–	6 360	–
Millard .....	46	2.0	2 188	.9	36 697	1.0	91	1.9	6 289	1.7	363 549	1.7
Morgan .....	11	7.1	269	5.1	3 695	2.7	15	5.9	336	4.4	13 394	4.0
Piute .....	5	9.6	208	2.3	2 865	2.5	–	–	–	–	–	–
Rich .....	–	–	–	–	–	–	7	7.3	(D)	(D)	(D)	(D)
Salt Lake .....	19	6.4	567	2.9	10 750	2.2	27	4.5	13 445	.8	344 441	.8
San Juan .....	–	–	–	–	–	–	75	1.5	32 018	.4	839 187	.3
Sanpete .....	39	3.1	1 477	1.8	27 408	1.8	38	3.5	898	5.3	39 917	8.1
Sevier .....	95	2.3	3 475	1.6	64 985	1.4	1	–	(D)	(D)	(D)	(D)
Summit .....	2	–	(D)	(D)	(D)	(D)	1	36.5	(D)	(D)	(D)	(D)
Tooele .....	4	6.8	189	3.0	3 879	3.7	7	7.5	1 036	7.2	35 180	4.8
Uintah .....	47	3.1	2 554	1.2	40 237	1.2	14	5.6	1 436	.6	41 930	.7
Utah .....	165	1.7	6 543	1.0	131 087	.7	60	2.9	14 274	.4	425 035	.9
Wasatch .....	–	–	–	–	–	–	4	13.5	90	7.9	(D)	(D)
Washington .....	4	–	(D)	(D)	(D)	(D)	5	10.4	(D)	(D)	(D)	(D)
Wayne .....	7	–	380	–	4 475	–	3	–	(D)	(D)	(D)	(D)
Weber .....	96	1.9	3 827	.8	77 795	.8	82	2.6	1 821	3.1	124 480	3.0

See footnotes at end of table.

**Table F. Reliability Estimates for the State and County Totals: 1992 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested — Con.											
	Barley for grain					Oats for grain						
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>2 345</b>	<b>.6</b>	<b>104 213</b>	<b>.4</b>	<b>7 879 596</b>	<b>.4</b>	<b>681</b>	<b>1.0</b>	<b>11 923</b>	<b>1.0</b>	<b>669 910</b>	<b>1.0</b>
Beaver .....	13	—	743	—	62 404	—	17	2.5	562	3.5	24 613	1.2
Box Elder .....	312	1.1	16 398	.6	1 373 817	.7	32	3.3	851	2.1	42 790	3.7
Cache .....	511	1.0	28 735	.7	1 899 559	.8	56	2.8	914	2.3	52 500	2.1
Carbon .....	10	7.4	352	1.9	15 832	1.7	19	5.6	157	6.6	9 101	7.7
Daggett .....	1	—	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Davis .....	49	3.4	1 407	9.5	117 880	9.1	24	5.4	230	7.4	16 987	7.8
Duchesne .....	61	2.5	3 062	2.1	219 585	1.6	43	3.3	597	2.8	35 096	3.5
Emery .....	18	4.1	248	2.6	12 738	3.5	43	3.1	454	4.3	18 357	4.7
Garfield .....	9	9.1	780	4.8	28 583	3.3	29	4.4	568	6.6	38 045	8.5
Grand .....	—	—	—	—	—	—	—	—	—	—	—	—
Iron .....	40	2.7	2 618	1.8	231 683	1.7	15	2.4	641	.3	46 865	.3
Juab .....	58	2.5	1 998	1.4	98 305	1.6	9	5.2	113	2.5	4 710	3.7
Kane .....	4	9.7	(D)	(D)	(D)	(D)	5	6.3	64	1.5	4 282	1.5
Millard .....	211	1.2	13 831	1.0	1 224 182	.9	35	3.0	870	2.2	56 125	3.2
Morgan .....	34	3.2	1 376	1.1	90 128	1.9	17	4.0	221	4.3	12 464	6.4
Piute .....	6	11.0	144	13.3	13 200	14.5	4	11.9	35	27.3	1 090	17.5
Rich .....	18	4.0	519	3.9	31 151	3.9	6	—	109	—	2 661	—
Salt Lake .....	42	3.8	1 677	4.0	142 177	4.4	23	5.3	361	6.4	28 159	6.9
San Juan .....	7	3.8	634	.4	13 880	.9	7	4.5	474	.7	11 740	.9
Sanpete .....	173	1.7	6 220	1.0	521 331	1.0	52	3.2	878	3.5	57 133	3.4
Sevier .....	88	2.3	3 070	1.9	242 193	2.1	19	6.2	373	4.2	8 118	6.4
Summit .....	12	5.6	413	3.0	29 618	3.3	9	9.2	108	5.2	8 084	2.5
Tooele .....	30	3.8	1 336	1.7	90 806	.8	13	5.8	149	3.3	5 765	5.8
Uintah .....	48	3.4	1 559	2.9	82 943	3.3	53	3.7	1 202	5.4	67 166	2.6
Utah .....	372	1.3	12 272	1.1	988 291	1.2	74	3.2	873	2.5	47 635	2.9
Wasatch .....	39	3.8	892	2.8	62 968	3.1	8	11.7	73	12.9	3 035	14.1
Washington .....	14	7.0	393	6.9	29 152	8.0	7	9.3	115	9.1	5 072	9.8
Wayne .....	46	2.9	1 055	2.5	78 067	2.4	26	3.6	377	4.4	22 314	3.6
Weber .....	119	2.1	2 402	2.4	174 283	2.4	36	4.5	554	3.8	40 003	1.6

Geographic area	Selected crops harvested — Con.										
	Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					Land in orchards					
	Farms		Acres		Quantity		Farms		Acres		
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Relative standard error of estimate (percent)
<b>Utah</b> .....	<b>8 660</b>	<b>.6</b>	<b>660 762</b>	<b>.4</b>	<b>2 073 029</b>	<b>.4</b>	<b>790</b>	<b>1.2</b>	<b>12 833</b>	<b>.8</b>	
Beaver .....	158	.9	24 407	.9	93 493	.8	—	—	—	—	
Box Elder .....	589	.8	62 843	.4	212 329	.4	124	2.4	1 677	2.5	
Cache .....	868	.7	63 596	.8	190 113	.8	28	5.6	101	5.4	
Carbon .....	114	1.7	5 146	1.3	12 231	1.0	7	11.0	37	23.2	
Daggett .....	21	2.2	3 743	.8	7 898	1.2	—	—	—	—	
Davis .....	290	1.3	7 618	1.5	26 564	1.6	49	3.9	280	8.3	
Duchesne .....	538	1.1	52 391	.8	149 882	.9	5	15.9	12	17.7	
Emery .....	333	.8	16 608	.7	44 495	.6	6	11.3	36	17.2	
Garfield .....	198	1.0	15 412	1.4	45 286	1.7	3	27.4	(D)	(D)	
Grand .....	46	3.5	2 107	4.2	8 787	4.1	24	5.6	101	7.0	
Iron .....	257	1.1	41 239	.7	180 659	.7	2	24.6	(D)	(D)	
Juab .....	147	1.0	16 885	1.1	52 769	1.0	4	14.1	20	25.9	
Kane .....	71	1.6	2 878	2.0	9 089	1.5	12	6.6	60	7.8	
Millard .....	466	.8	59 478	.7	236 980	.6	3	15.9	(D)	(D)	
Morgan .....	174	1.3	7 754	1.4	18 617	1.9	—	—	—	—	
Piute .....	84	1.8	10 616	1.8	27 434	1.3	—	—	—	—	
Rich .....	123	1.0	43 480	.7	56 640	.6	—	—	—	—	
Salt Lake .....	269	1.5	8 720	1.6	30 864	1.8	42	4.2	344	6.1	
San Juan .....	81	1.9	6 046	1.0	13 787	2.4	11	7.7	48	12.6	
Sanpete .....	492	.9	41 638	.9	126 546	.9	5	10.9	36	24.3	
Sevier .....	312	1.0	24 291	.9	95 855	.8	4	15.2	21	17.2	
Summit .....	280	1.1	16 743	1.3	34 649	1.3	1	26.0	(D)	(D)	
Tooele .....	199	1.3	11 269	1.1	33 812	1.2	2	28.1	(D)	(D)	
Uintah .....	493	1.1	34 963	1.0	97 896	1.3	5	11.6	8	18.1	
Utah .....	921	1.0	35 312	.9	125 410	.8	301	1.7	8 958	.8	
Wasatch .....	199	1.3	9 041	1.4	25 649	1.2	4	15.1	10	23.6	
Washington .....	195	1.5	6 739	3.5	22 246	3.4	85	2.7	642	5.8	
Wayne .....	154	1.1	11 499	1.0	33 604	1.2	11	9.4	94	22.6	
Weber .....	588	.9	18 300	1.1	59 445	1.0	52	3.8	286	8.0	

<sup>1</sup>Data are based on a sample of farms.

**Table G. State Estimates of the Not on the Mail List Component of Farm Coverage Error: 1992**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Census published farms		Not on mail list <sup>1</sup>		Percent not on mail list <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)	Total (percent)	Standard error of percent
Farms ----- number--	13 520	.7	2 388	18.7	15.0	2.8
Land in farms ----- acres --	9 624 463	.1	66 052	25.4	.7	.2
Average size of farm ----- acres --	711.9	.7	27.7	24.5	(X)	(X)
<b>Farms by size:</b>						
Less than 10 acres -----	2 262	1.1	1 236	29.2	35.3	7.0
10 to 49 acres -----	3 735	1.0	890	21.8	19.2	3.7
Less than 50 acres -----	5 997	1.0	2 126	19.6	26.2	4.2
50 acres or more -----	7 523	.5	263	39.1	3.4	1.3
50 to 99 acres -----	1 661	1.0	96	47.1	5.5	2.4
100 to 179 acres -----	1 515	1.0	123	73.2	7.5	5.2
180 acres or more -----	4 347	.5	44	44.3	1.0	.4
Harvested cropland ----- farms --	10 173	.6	1 403	18.2	12.1	2.2
----- acres--	1 043 347	.3	24 084	20.9	2.3	.5
<b>Farms by value of sales:</b>						
Less than \$1,000 -----	2 023	1.2	1 188	22.5	37.0	5.2
\$1,000 to \$2,499 -----	1 956	1.2	650	27.9	24.9	5.2
Less than \$2,500 -----	3 979	1.1	1 838	21.9	31.6	4.7
\$2,500 or more -----	9 541	.6	550	25.7	5.5	1.3
\$2,500 to \$9,999 -----	3 596	.9	434	29.9	10.8	2.9
\$10,000 or more -----	5 945	.5	116	41.1	1.9	.8
Market value of agricultural products sold -----\$1,000 --	725 159	.2	9 345	29.0	1.3	.4
<b>Farms by standard industrial classification:</b>						
Crops (01) -----	4 553	.8	848	20.9	15.7	3.0
Livestock (02) -----	8 967	.6	1 540	22.7	14.7	3.2
<b>Farms by type of organization:</b>						
Individual or family -----	11 030	.7	1 937	18.9	14.9	2.8
Partnership or corporation -----	2 281	.7	200	45.4	8.1	3.4
Other -----	209	1.6	89	97.1	30.0	20.8
<b>Farms by tenure of operator:</b>						
Full owners -----	8 212	.7	1 550	20.4	15.9	3.2
Part owners and tenants -----	5 308	.6	676	24.7	11.3	2.6
Part owners -----	4 229	.6	494	30.9	10.5	3.0
Tenants -----	1 079	1.2	182	38.5	14.4	4.9
<b>Operators by place of residence:</b>						
On farm operated -----	8 476	.7	1 406	20.7	14.2	2.9
Not on farm operated -----	4 048	.8	801	24.1	16.5	3.6
Not reported -----	996	.9	181	54.6	15.3	7.1
<b>Operators by principal occupation:</b>						
Farming -----	6 269	.5	180	45.8	2.8	1.2
Other -----	7 251	.9	1 969	19.8	21.4	3.9
<b>Operators by sex:</b>						
Male -----	12 925	.6	2 252	19.6	14.8	2.8
Female -----	595	1.4	137	57.7	18.7	8.9
<b>Operators by race:</b>						
White -----	13 390	.7	1 963	18.2	12.8	2.4
Black and other races -----	130	2.5	211	53.1	61.9	13.0
<b>Operators by years on present farm:</b>						
4 years or less -----	1 627	1.2	718	23.5	30.6	5.6
5 years or more -----	9 517	.6	1 254	23.8	11.6	2.7
Average years on present farm -----	20.5	.9	12.5	24.6	(X)	(X)
Not reported -----	2 376	.8	415	33.8	14.9	4.4
Average age of operator -----	54.8	.9	52.8	19.5	(X)	(X)

Note: These estimates do not account for incorrectly classified farms or farms appearing more than once in the census and are subject to change in the 1992 Coverage Evaluation publication. See appendix C text for further explanation.

<sup>1</sup>Estimates are based on a sample survey conducted independently of census data collection.