Appendix C.
Statistical Methodology

THE SCREENING PHASE AND THE MAIL LIST MODEL

The 1997 Census of Agriculture featured a pre-census screening phase that surveyed selected records, by mail or telephone, for presence or absence of agricultural activity. Records selected for screening had a low probability of qualifying as farms. All records responding to the screener and reporting no agricultural activity were removed from the census mail list. Eliminating nonfarm records from the mail list reduced respondent burden and data collection costs.

The screening phase included nearly 500,000 records. Records were selected for screening using one of the following criteria:

1) Records on selected agriculture specialty lists that had no other list source,
2) Records identified by a mail list model as having a low probability of being a farm.

A mail list model predicted the probability that an addressee on the 1997 preliminary census mail list operated a farm. The model defined groups based on combinations of characteristics such as source(s) of the mail list record, expected value of agricultural production, and geographic location. Farm proportions were estimated for these groups by calculating the proportion of 1992 census respondent records that were farms which exhibited the characteristics defined by the group. This proportion, also called the in-scope rate, provided an estimate of the probability that an addressee in the group operated a farm.

Each address record on the 1997 preliminary census 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. Records with a farm probability of approximately 30 percent or less were selected for screening, along with records included on selected agriculture specialty lists as noted above.

Before screening, the preliminary census mail list consisted of 3,314,790 records. There were 478,298 records selected for screening. Of these, 125,570 records were determined to be nonfarms as a result of the screening phase and were removed. These records were removed from the final census mail list. The remaining 3,189,220 records received census report forms.

CENSUS SAMPLE DESIGN

All name and address records on the final census mail list were designated to receive a 1997 Census of Agriculture report form. Two different types of census report forms, sample and nonsample, were used to collect data. Sections 1 through 20 and 28 through 32 of the sample form were identical to sections on the nonsample census form. Sample form sections 21 through 27 contained additional questions on usage of fertilizers and chemicals, farm production expenditures, value of machinery and equipment, value of land and buildings, farm-related income, and hired workers. There were 11 regional versions of the nonsample form and 13 regional versions of the sample form with listings of crops varying by region. These 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. Mail list records were selected into the sample with certainty if they (1) were expected to have large total value of agricultural products sold or large acreage, (2) were multi-unit operations (i.e., separate farms producing under one company organization), (3) were in a county with less than 100 farms in 1992, or (4) had other special characteristics. Farms with special characteristics were abnormal farms, such as institutional farms, experimental and research farms, and Indian reservations. Mail list records in counties containing 100 to 199 farms in 1992 were systematically sampled at a rate of 1 in 2; records in counties containing 200 to 299 farms in 1992 were systematically sampled at a rate of 1 in 4; and records in counties containing 300 or more farms in 1992 were systematically sampled at a rate of 1 in 6. The remaining mail list records not chosen to receive the sample form received the nonsample census form. This differential sampling scheme was used to provide reliable data for the sample sections of the report form for all counties.

EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE

The census of agriculture complex edit and imputation system is an automated computerized system that performed the following functions:

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- Ensured reasonable relationships between/among data items, values for various sizes of farms, combinations of commodities, and economic interactions.
- Ensured necessary consistencies were present (there were more than 70 distinct consistency requirements).
- Ensured climatic, geographic, legal, and physical constraints were met.

The system performed these and similar functions for more than 900 data key codes for sample records and approximately 850 data key codes for nonsample records.

For the 1997 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 for that record 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 fixed 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 was 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 Classifications 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 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 the same 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. An edit run usually consisted of 10,000 or more records.

After the initial computer edit, all keyed reports not meeting the census farm definition were reviewed to ensure that the data had been keyed correctly. Edit referrals were generated for 17 percent of the reports included as farms; they were reviewed for keying accuracy and 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 re-edited.

CENSUS ESTIMATION

The 1997 Census of Agriculture used two types of statistical estimation procedures to account for whole farm nonresponse and sample data collection. The procedures were necessary because some farm operators did not respond to the census despite numerous attempts to contact them, and estimates for certain data items were based on a sample of farm operators rather than a full enumeration.

Whole Farm Nonresponse Estimation

Whole farm nonresponse to the census occurred when a response was never received for a record. If the record was a large farm, as defined by value of production or acreage, or a unique farm operation, intensive telephone or personal followup was conducted during census processing to obtain a response. If these attempts failed, either the NASS survey database, the census historic database, or other more current sources were used to impute data for the record.

During mail list development, the State Statistical Offices (SSOs), in an effort to reduce respondent burden, identified records that participated in multiple NASS surveys and/or situations where there were special reporting relationships between an enumerator and a respondent. These records were referred to as tagged records. The SSOs had full responsibility for the data collection for these records, including imputation of data for the record if a response was not obtainable.

Whole farm nonresponse that occurred within the remaining universe of records was accounted for by a statistical weighting procedure. The weights of the responding farms were adjusted to account for farms that did not respond. The information needed for this process was obtained from the 1997 Nonresponse Survey. The SSOs conducted the nonresponse survey using computer-assisted telephone interviewing (Blaise-CATI) or personal enumeration when telephone contact was not possible. Alaska and Rhode

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Island were not eligible for the survey because all nonrespondents were subject to extensive followup. In these cases, data were collected by telephone or other methods. The nonresponse survey collected information from a sample of census nonrespondents to determine farm status and estimate the proportion of farms in the nonresponse universe. The information was then used to estimate the number of nonresponding farm operations by State and county.

The 1997 Nonresponse Survey consisted of a stratified systematic sample of the nonresponse records within each State. The sample was selected near the end of the census follow-up operations. Five strata were defined to be homogeneous on probability of farm status and were based on screener status, total value produced, and list source(s) of the mail list record.

Based on survey results, estimates of the proportion of census nonrespondents operating farms were made for each stratum in the State. The estimates were applied to the total number of census nonrespondents in that stratum, providing a State estimate of the number of census nonrespondents that operated farms. The number of census nonrespondents that operated farms was then derived for each county by stratum. This estimation procedure assumed that the distribution of farms in a stratum by county was the same for census nonrespondents as for census respondents.

Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. Census respondent farms that were designated as large farms or tagged records or as farms that exhibited ‘‘rare’’ commodities were ineligible to represent nonrespondent farms and were excluded from the nonresponse weighting procedure. These records were assigned nonresponse weights of 1.0.

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, divided by the number of eligible census respondent farms. Stratum controls were established to ensure that this weight never exceeded 2.0. For the published tabulations of the complete count items, the noninteger nonresponse weight was randomly rounded to an integer weight of either 1 or 2 for each record. For the sample count items, the noninteger nonresponse weight was used in the calculation of the final sample weight.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentages in this table are 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 this table do not reflect the effect of item nonresponse to individual census data items. The effect of this item nonresponse is discussed in the ‘‘Census Nonsampling Error’’ section.

Sample Estimation

Sample data estimation determined the population totals that would have resulted from a complete census for the items in sections 21 through 27 of the sample form. The estimates were obtained from a weighting procedure that assigned 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.

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 were multiplied by 6.

The noninteger sample weight is calculated for each respondent sample farm by multiplying the noninteger nonrespondent weight by the sampling factor. For published tabulations of the sample count items, the noninteger sample weight was randomly rounded to an integer weight for each record. For certainty farms, the sampling factor equals 1 so the sample weight is just equal to the nonresponse weight. Sampling factor calculation for non-certainty farms is described below.

Within a county, the weighting procedure for non-certainty farms was performed in three steps using three variables. The first variable contained eight 1997 total value of agricultural production (TVP) groups. The second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The three sets of groups were:

TVP	SIC	Acres
$1 to $999	01, 08 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 classified the sample records into 32 mutually exclusive initial strata formed by the three variable groups. The total and sample farm counts were expanded to account for nonresponse. Each cell containing sample farm records was assigned an initial sample factor equal to the ratio of the total farm count to the sample farm count. This factor was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure combined, when necessary, the 32 initial strata to increase the reliability of the weighting procedure. Any stratum that contained less than 10 sample farms or had a factor greater than twice the mail sample rate was collapsed with another stratum. The mail sample rate was either 2, 4, or 6,

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depending on whether the county had a 1 in 2, 1 in 4, or 1 in 6 sample selection rate. The collapsing occurred within the 32 initial 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 final strata and used to calculate final sample factors.

The final step calculated the noninteger sample weight as the product of the final sampling factor and the noninteger nonresponse weight. As described previously, the noninteger sample weight for each record is randomly rounded to an integer weight which is used in published tabulations. For example, if the final weight for a farm was 7.2, then the record would be rounded to either 7 or 8.

CENSUS SAMPLING ERROR

The sample for the 1997 Census of Agriculture was only one of a large number of possible samples of the same size that could have been selected using the same sample design. In this context, ‘‘sample’’ refers to the sample for both the nonresponse survey and the selection of farms to receive sample forms.

The standard error, or sampling error, of a survey estimate is a measure of the variation among the estimates from all possible samples. It is a measure of precision - that is, how well an estimate from a particular sample approximates the true population parameter. The percent relative standard error of an estimate is defined as the standard error of the estimate divided by the value of the estimate, then multiplied by 100. The true population parameter can be defined or conceptualized several different ways. One way is to think of the true population parameter as the average result of all possible samples (selected using a given sample design). A second way is to think of the true population parameter as the figure obtained from carrying out a complete enumeration of the population.

If all possible samples were selected, each of the samples surveyed under essentially the same conditions, and an estimate and its standard error 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 true population parameter.

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 true population parameter.

The following example illustrates the computations necessary to produce a confidence statement 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 0.1 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 true population parameter. 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. All farm operators were asked the complete count items. 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.

Only a sample of farm operators were asked the sample count items. These items appeared only in sections 21 through 27 of the sample 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, farm-related income, and hired workers.

Variability in the estimates of complete count items was due only to the nonresponse survey estimation procedure. With regard to the estimates of sample count items, variability was due to both the nonresponse survey estimation procedure and the census sample selection and estimation procedure. Therefore, variability in the sample count item estimates tends to be larger than the variability in the complete count item estimates. Percent relative standard error is a common measure of variability.

Table B provides the generalized reliability estimates of the estimated number of farms in a county that reported complete count and sample count items. The top half of the table shows the percent relative standard errors for estimated number of farms in a county that reported a complete count item, and the bottom half relates to sample count items. These reliability estimates are derived from regression equations. Separate regression equations were used to produce each section of table B. 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 the appropriate counties in the State. 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 1992 Census of Agriculture, variability in sample count

item estimates came only from nonresponse survey estimation procedures. The estimated relative standard error for a sample count item in these counties may be obtained using the first part of table B.

Use caution when referring to the ‘‘Sample Count Item’’ section of table B to make inferences on counties. Some counties may have been sampled at the rate of 1 in 2 or 1 in 4, but the reliability estimates shown were computed using only data from counties sampled at the rate of 1 in 6. Therefore, the reliability estimates shown would likely be overstated (or conservative) if the county was actually sampled at a higher rate.

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 standard error for percent change in State totals from 1992 to 1997. 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 1997 and the 1992 estimate for that characteristic to the 1992 estimate. This ratio is multiplied by 100 to obtain the percent change. The standard error of a percent change estimate 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 the (1) total number of farms, (2) number of large farms included with certainty, (3) size classifications of the farms sampled, (4) amount of nonresponse, (5) general agricultural characteristics, and (6) specific characteristic being measured.

The farm counts and related estimates displayed in tables A through F relate to unadjusted census totals. These totals are the same as the ‘‘Census total’’ displayed in the first column of table G (which will be discussed later in this appendix).

For most of the tables in this appendix, and also many of the tables throughout the publication, there is a footnote that reads ‘‘Data are based on a sample of farms.’’ The table entries that this footnote relate to are estimates of totals. To illustrate, suppose that the entry ‘‘other farm-related income’’ is shown with this footnote and has some number of farms given. This number given would represent an estimated total number of farms with ‘‘other farm-related income,’’ based on the farms that were in the sample. This number should not be interpreted as the number of farms in the sample that have ‘‘other farm-related income.’’

CENSUS NONSAMPLING ERROR

The accuracy of the census counts is 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. Nonsampling errors arise from many sources, including respondent or enumerator error or incorrect data keying, editing, or imputing for missing data. These nonsampling errors are further discussed in this section. Nonsampling error due to mail list incompleteness and duplication as well as misclassification of records on the mail list is called coverage error. The section titled ‘‘Coverage Evaluation’’ discusses the evaluation studies conducted to measure the extent of this error in the census.

Respondent and Enumerator Error

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. To reduce reporting error, detailed instructions for completing the report form were provided to each respondent. Questions were phrased as clearly as possible based on previous tests of the report form. In addition, each respondent’s answers were checked for completeness and consistency by the complex edit and imputation system.

Item Nonresponse

As information flowed from data collection to tabulation, various types of item nonresponses were identified on the census report forms. Nonresponse to particular questions on the census report form that logically should have been present created a type of nonsampling error in both complete count and sample count data. In this case, information from a similar farm was used to impute for these missing data items. The resulting data may have been biased if the characteristics of the nonreporting respondents were different from those of reporting respondents for those items.

Processing Error

All phases of processing for each census report form were potential sources for the introduction of nonsampling error. An automated check-in recorded that the report had been returned and excluded from further followup mailings. Approximately one-third of the mail returns were reviewed to resolve questions dealing with multiple reports, respondent remarks, or no reported data. The remaining mail returns (about two-thirds) were batched and sent directly to data keying, along with some of the reviewed cases containing farm data. Keyed records were transmitted, formatted, and run through the complex edit and imputation system. About one-fifth of all forms edited were clerically reviewed for inconsistencies, omissions, or questionable values. While reviewing these forms, the edit review staff determined if the action taken by the computer edit and imputation system was correct. Edited records were tabulated to the county level. Each county was reviewed and, when necessary, individual records were corrected prior to publication.

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Developing accurate processing methods is complicated by the complex structure of agriculture. Among the complexities are the many places to be included, the variety of arrangements under which farms are operated, the continuing changes in the relationship of operators to the farm operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete list of agriculture operations, the difficulty of contacting and identifying some types of contractor/contractee relationships, the operator's absence from the farm during the data collection period, and the operator's opinion that part or all of the operation does not qualify and should not be included in the census. During data collection and processing of the census, all operations underwent a number of quality control checks to ensure as accurate an application as possible.

COVERAGE EVALUATION

Coverage Overview

The primary objectives of the census of agriculture are to accurately count U.S. farms, measure commodity production and sales, and measure demographic characteristics of farm operators. Since 1945, an evaluation of census coverage has been conducted for each census of agriculture to provide estimates of the completeness of census farm counts. These results help to identify problems and focus improvements for future censuses.

According to coverage evaluation results, the past five censuses of agriculture included an average of 92 percent of U.S. farms and 98 percent of agriculture production. Complete enumeration of agricultural operations satisfying the farm definition of $1,000 or more in agricultural sales is complicated by the variety of arrangements under which farms are operated, the multiplicity of names used for an operation, the number of operations in which an operator participates, and the difficulty in classifying those operations just around the $1,000 sales range. In 1997, extensive efforts were made to compile as complete and accurate a mail list as possible, while reducing the duplication and number of nonfarm operations on the list.

The 1997 coverage evaluation program was designed to measure four components of error in the census farm counts. These components include:

1. Undercount due to farms Not on the Mail List (NML)
2. Overcount due to farms Duplicated or enumerated more than once (DUP)
3. Undercount due to farms Incorrectly Classified as nonfarms (ICU)
4. Overcount due to nonfarms Incorrectly Classified as farms (ICO).

The first component, mail list undercount, is by far the largest component of coverage error. Duplication, though occurring far less frequently, can involve larger farms and have a larger impact on acreage and sales estimates. The last two components involve the misclassification of either farms or nonfarms. Misclassification can arise from errors in either reporting or processing the data.

Table G - Coverage Estimates - illustrates the effect of coverage adjustments on census farm counts by demographic characteristics, land in farms, and total value of sales. The coverage total is defined as the net difference between undercounted and overcounted farms. The adjusted census total is the sum of the census total and the net coverage total. The relative standard error is shown for the final census coverage adjusted number. This number will be similar to the relative standard error for the census number, except when the coverage total is negative or close to zero. The coverage adjustment percentage shows the coverage total as a percentage of total census adjusted farms for that characteristic.

The 1997 Census of Agriculture is the first census to include all four components of coverage error in table G. Previous publications only included the coverage error component due to farms not on the mail list (NML). Because of this, caution should be taken when comparing coverage estimates from table G with previous years. In addition, the coverage total is a negative number for some characteristics. This means that the number of farms overcounted for this characteristic was greater than the number of farms undercounted.

Area Frame Surveys to Measure Mail List Undercoverage

Names and addresses collected in the 1997 June Agricultural Survey and 1997 Fall Area Survey were used to estimate the undercount due to farms not on the census mail list (NML). These names were matched to the census mail list, and those that did not match were contacted by telephone or person. The enumerator verified whether the operation had reported in the census, and if not, a census of agriculture report form was completed.

The percentage of farms missed in the census varies considerably by State. In general, farms not on the mail list tended to be small in acreage, production, and sales of agricultural products. Farm operations could be missed for various reasons, including the possibility that the operation started after the mail list was developed, the operation may be so small as not to appear in any agriculture-related source lists, or the operation may have been falsely classified as a nonfarm prior to mailout.

Classification Error Survey to Measure Three Types of Coverage Error

The remaining three types of coverage error were measured by the Classification Error Survey. This survey was used to estimate the number of farms counted more than once (DUP), the number of farms misclassified as nonfarms (ICU), and the number of nonfarms misclassified as farms (ICO). A sample of census of agriculture respondents was selected for reinterview to determine their farm/nonfarm status and collect information to identify

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potential duplication. The farm classification from this interview was compared with the classification on the census of agriculture report form. Any differences between these two classifications were reconciled to determine the true farm status. Each operation was reviewed for duplication by matching the additional information received from the reinterview (landlords, tenants, other names, etc.) to the list of census respondents. Potential duplication was reviewed and discrepancies reconciled.

In general, the classification error rate is higher for small farms close to the $1,000 agricultural sales requirement. This rate is also higher for farms with small acreage (less than 49 acres), higher for tenant farms than for full- or part-owner farms, and higher for farms where farming is not the operator's principal occupation.

Coverage Estimation

The adjusted census total, T, is estimated as the census farm count, C, plus undercount and minus overcount adjustments. Undercount includes 1) farms not on the mail list (NML) and 2) farms incorrectly classified as nonfarms (ICU). Overcount includes 3) nonfarms incorrectly classified as farms (ICO) and 4) farms duplicated in the census (DUP). Altogether, the adjusted census total is:

$$T = C + (NML + ICU) - (ICO + DUP).$$

In some States, estimates of misclassification of farms owned by operators having rare demographic characteristics were based on particularly small sample sizes. Where such small sample sizes occurred, a form of small area estimation was used in which data from similar States contributed to that State's estimates. In these cases, the coverage totals are weighted totals of the direct State estimate and the direct estimate from the region. Direct estimates were used to the largest extent possible, based on the amount of survey cases available for the particular item being estimated.

Table A. **Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1997**

Item	Percent of total	Item	Percent of total
Farms ..... number..	10.9	Corn for grain or seed ..... acres..	6.5
Land in farms ..... acres..	7.9	Wheat for grain ..... acres..	7.2
Estimated market value of land and buildings[1] ..... $1,000..	7.9	Livestock and poultry inventory:	
Market value of agricultural products sold ..... $1,000..	5.1	Cattle and calves ..... number..	7.8
Harvested cropland ..... acres..	7.1	Hogs and pigs ..... number..	3.6
		Layers 20 weeks old and older ..... number..	.1

[1]Data are based on a sample of farms.

Table B. **Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item or Sample Count Item: 1997**

Farms	Relative standard error of estimate (percent)	Farms	Relative standard error of estimate (percent)
COMPLETE COUNT ITEM		SAMPLE COUNT ITEM	
Number of farms reporting:		Number of farms reporting:	
25	5.8	25	39.6
50	4.0	50	28.2
75	3.3	75	23.3
100	2.8	100	20.4
150	2.3	150	16.9
200	1.9	200	14.9
300	1.5	300	12.6
500	1.1	500	10.4
750	.8	750	9.0
1,000	.6	1,000	8.3
1,500	.2	1,500	7.5
2,000	.1	2,000	7.1

Table C. **Reliability Estimates of State Totals for All Farms: 1997**

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

Item		Total	Relative standard error of estimate (percent)
FARMS AND LAND IN FARMS			
Farms	number	68 591	.4
Land in farms	acres	14 103 085	.3
Average size of farm	acres	206	.6
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD			
Total sales (see text)	farms	68 591	.4
	$1,000	4 684 277	.3
Average per farm	dollars	68 293	.5
Farms by value of sales:			
Less than $1,000 (see text)	farms	8 600	.7
	$1,000	1 749	.9
$1,000 to $2,499	farms	7 367	.7
	$1,000	12 326	.7
$2,500 to $4,999	farms	8 105	.6
	$1,000	29 014	.6
$5,000 to $9,999	farms	8 645	.6
	$1,000	62 112	.6
$10,000 to $19,999	farms	8 651	.6
	$1,000	123 209	.6
$20,000 to $24,999	farms	2 793	.8
	$1,000	62 263	.8
$25,000 to $39,999	farms	5 309	.7
	$1,000	168 137	.7
$40,000 to $49,999	farms	2 229	.9
	$1,000	99 091	.9
$50,000 to $99,999	farms	6 150	.7
	$1,000	438 804	.7
$100,000 to $249,999	farms	6 657	.7
	$1,000	1 056 718	.6
$250,000 to $499,999	farms	2 702	–
	$1,000	931 354	–
$500,000 or more	farms	1 383	–
	$1,000	1 699 499	–
Sales by commodity or commodity group:			
Crops, including nursery and greenhouse crops	farms	47 754	.4
	$1,000	2 827 924	.3
Grains	farms	35 741	.5
	$1,000	2 186 494	.3
Corn for grain	farms	26 159	.5
	$1,000	914 996	.3
Wheat	farms	18 526	.5
	$1,000	176 261	.4
Soybeans	farms	28 480	.5
	$1,000	1 078 728	.3
Sorghum for grain	farms	17	7.5
	$1,000	88	13.5
Barley	farms	143	2.3
	$1,000	316	2.5
Oats	farms	2 191	.7
	$1,000	4 043	.9
Other grains	farms	541	1.2
	$1,000	12 062	.7
Cotton and cottonseed	farms	–	–
	$1,000	–	–
Tobacco	farms	2 795	.6
	$1,000	34 323	.9
Hay, silage, and field seeds	farms	13 617	.5
	$1,000	76 130	.6
Vegetables, sweet corn, and melons	farms	2 174	.7
	$1,000	97 189	.4
Fruits, nuts, and berries	farms	1 090	1.0
	$1,000	20 634	.9
Nursery and greenhouse crops	farms	2 812	.7
	$1,000	402 118	.2
Other crops	farms	539	1.3
	$1,000	11 035	.9
Livestock, poultry, and their products	farms	34 469	.4
	$1,000	1 856 353	.2
Poultry and poultry products	farms	2 373	.7
	$1,000	573 151	.1
Dairy products	farms	4 847	.6
	$1,000	510 362	.4
Cattle and calves	farms	26 278	.4
	$1,000	344 743	.4
Hogs and pigs	farms	5 938	.5
	$1,000	364 754	.3
Sheep, lambs, and wool	farms	3 506	.7
	$1,000	9 604	1.0
Other livestock and livestock products (see text)	farms	4 624	.7
	$1,000	53 739	.8
Value of agricultural products sold directly to individuals for human consumption (see text)	farms	4 877	.6
	$1,000	28 221	.7
FARM PRODUCTION EXPENSES[1]			
Total farm production expenses	farms	68 591	.4
	$1,000	3 608 839	.4
Average per farm	dollars	52 614	.6
Livestock and poultry purchased	farms	18 692	1.4
	$1,000	267 858	1.5
Feed for livestock and poultry	farms	31 975	1.0
	$1,000	713 397	.8
Commercially mixed formula feeds	farms	21 937	1.3
	$1,000	508 232	1.0
Seeds, bulbs, plants, and trees	farms	44 036	.7
	$1,000	237 751	.7
Commercial fertilizer	farms	47 671	.7
	$1,000	345 896	.8
Agricultural chemicals	farms	40 577	.8
	$1,000	224 526	.9
Petroleum products	farms	64 360	.5
	$1,000	180 186	.7
Electricity	farms	47 360	.7
	$1,000	54 824	.7
Hired farm labor	farms	19 017	1.4
	$1,000	314 865	.8
Contract labor	farms	4 587	3.2
	$1,000	19 117	3.0
Repair and maintenance	farms	57 400	.6
	$1,000	258 610	.8
Customwork, machine hire, and rental of machinery and equipment	farms	23 037	1.3
	$1,000	54 657	1.8
Interest	farms	28 926	1.1
	$1,000	238 538	1.1
Secured by real estate	farms	21 601	1.3
	$1,000	163 868	1.4
Not secured by real estate	farms	15 117	1.6
	$1,000	74 670	1.4
Cash rent	farms	18 757	1.3
	$1,000	273 619	1.1
Property taxes	farms	63 031	.5
	$1,000	103 622	.8
All other farm production expenses	farms	61 699	.5
	$1,000	321 371	.7
NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)[1]			
All farms	number	68 591	.4
	$1,000	1 039 324	1.0
Average per farm	dollars	15 152	1.1
Farms with net gains[2]	number	36 745	.8
	$1,000	1 255 686	.7
Average net gain	dollars	34 173	1.1
Farms with net losses	number	31 846	.9
	$1,000	216 362	1.5
Average net loss	dollars	6 794	1.8
GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME			
Government payments	farms	29 019	.5
	$1,000	141 185	.4
Other farm-related income[1]	farms	18 506	1.5
	$1,000	80 987	3.0
Customwork and other agricultural services	farms	6 201	2.7
	$1,000	36 724	5.0
Gross cash rent or share payments	farms	5 716	2.9
	$1,000	25 801	5.2
Forest products, excluding Christmas trees and maple products	farms	1 803	5.5
	$1,000	10 160	8.4
Other farm-related income sources	farms	8 490	2.2
	$1,000	8 301	4.9
COMMODITY CREDIT CORPORATION LOANS			
Total	farms	2 627	.7
	$1,000	92 486	.5

See footnotes at end of table.

Table C. **Reliability Estimates of State Totals for All Farms: 1997**—Con.

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

Item		Total	Relative standard error of estimate (percent)
LAND IN FARMS ACCORDING TO USE			
Total cropland	farms	63 669	.4
	acres	11 340 967	.3
Harvested cropland	farms	58 048	.4
	acres	9 900 570	.3
Farms by acres harvested:			
1 to 9 acres	farms	8 063	.6
	acres	35 272	.7
10 to 19 acres	farms	6 568	.7
	acres	88 388	.7
20 to 29 acres	farms	5 076	.6
	acres	117 723	.6
30 to 49 acres	farms	7 661	.6
	acres	288 795	.6
50 to 99 acres	farms	9 912	.6
	acres	690 744	.6
100 to 199 acres	farms	7 994	.7
	acres	1 111 120	.7
200 to 499 acres	farms	7 567	.6
	acres	2 378 750	.6
500 to 999 acres	farms	3 453	.5
	acres	2 370 595	.5
1,000 acres or more	farms	1 754	–
	acres	2 819 183	–
Cropland:			
Pasture or grazing only	farms	23 505	.5
	acres	847 865	.5
Other cropland	farms	16 145	.5
	acres	592 532	.6
Total woodland	farms	36 236	.4
	acres	1 551 022	.4
Pastureland and rangeland other than cropland and woodland pastured	farms	13 440	.5
	acres	575 232	.5
Land in house lots, ponds, roads, wasteland, etc.	farms	47 113	.4
	acres	635 864	.4
Irrigated land	farms	1 778	.8
	acres	33 997	.5
Acres irrigated:			
1 to 9 acres	farms	1 449	.9
	acres	3 190	1.0
10 to 49 acres	farms	218	1.8
	acres	4 570	1.9
50 to 99 acres	farms	46	3.0
	acres	3 249	2.9
100 to 199 acres	farms	30	1.7
	acres	4 121	1.3
200 to 499 acres	farms	24	1.9
	acres	6 992	1.3
500 to 999 acres	farms	7	–
	acres	4 811	–
1,000 acres or more	farms	4	–
	acres	7 064	–
Harvested cropland irrigated	farms	1 739	.8
	acres	33 506	.5
Pasture and other land irrigated	farms	57	4.1
	acres	491	5.4
Land under Conservation Reserve or Wetlands Reserve Programs	farms	8 193	.6
	acres	350 123	.8
VALUE OF LAND AND BUILDINGS[1]			
Estimated market value of land and buildings	farms	68 591	.4
	$1,000	28 449 697	.6
Average per farm	dollars	414 773	.8
Average per acre	dollars	2 039	.9
VALUE OF MACHINERY AND EQUIPMENT[1]			
Estimated market value of all machinery and equipment	farms	68 585	.4
	$1,000	3 952 140	.8
Average per farm	dollars	57 624	.9
AGRICULTURAL CHEMICALS[1]			
Commercial fertilizer	farms	47 322	.7
	acres on which used	7 622 092	.7

Item		Total	Relative standard error of estimate (percent)
TENURE OF OPERATOR			
All operators	farms	68 591	.4
	acres	14 103 085	.3
Full owners	farms	40 819	.5
	acres	4 207 470	.5
Part owners	farms	21 505	.4
	acres	8 522 158	.3
Tenants	farms	6 267	.6
	acres	1 373 457	.6
OWNED AND RENTED LAND			
Land owned	farms	62 566	.4
	acres	8 268 187	.4
Owned land in farms	farms	62 324	.4
	acres	7 511 635	.4
Land rented or leased from others	farms	27 966	.5
	acres	6 639 171	.3
	landlords	90 080	.4
Rented or leased land in farms	farms	27 772	.5
	acres	6 591 450	.3
Land rented or leased to others	farms	9 398	.5
	acres	804 273	.7
OPERATOR CHARACTERISTICS			
Operators by place of residence:			
On farm operated		53 398	.4
Not on farm operated		10 983	.6
Not reported		4 210	.6
Operators by principal occupation:			
Farming		31 022	.4
Other		37 569	.5
Operators by days worked off farm:			
Any		40 955	.5
200 days or more		29 742	.5
Operators by sex:			
Male	farms	63 852	.4
	acres	13 577 127	.3
Female	farms	4 739	.7
	acres	525 958	.8
Average age of operator	years	53.1	.6
FARMS BY TYPE OF ORGANIZATION			
Individual or family (sole proprietorship)	farms	59 716	.4
	acres	10 774 004	.4
Partnership	farms	6 471	.6
	acres	2 276 265	.4
Corporation:			
Family held	farms	1 830	.8
	acres	888 619	.5
More than 10 stockholders	farms	46	3.7
10 or less stockholders	farms	1 784	.8
Other than family held	farms	176	2.1
	acres	52 412	1.7
More than 10 stockholders	farms	19	5.2
10 or less stockholders	farms	157	2.2
Other—cooperative, estate or trust, institutional, etc.	farms	398	1.6
	acres	111 785	1.3
HIRED FARM LABOR[1]			
Hired workers by days worked:			
150 days or more	farms	7 058	2.1
	workers	19 851	1.3
Less than 150 days	farms	17 371	1.5
	workers	58 599	1.8
INJURIES AND DEATHS			
Farm-related injuries:			
Operator and family members	farms	630	1.2
	number	702	1.3
Hired workers	farms	339	1.0
	number	685	.7
Farm-related deaths:			
Operator and family members	farms	21	–
	number	21	–
Hired workers	farms	2	–
	number	(D)	(D)

See footnotes at end of table.

Table C. **Reliability Estimates of State Totals for All Farms: 1997**—Con.

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

Item		Total	Relative standard error of estimate (percent)
FARMS BY SIZE			
1 to 9 acres	farms	5 271	.7
	acres	23 582	.7
10 to 49 acres	farms	15 811	.6
	acres	432 636	.6
50 to 69 acres	farms	5 639	.6
	acres	328 059	.6
70 to 99 acres	farms	7 990	.6
	acres	662 981	.6
100 to 139 acres	farms	7 707	.6
	acres	896 672	.6
140 to 179 acres	farms	5 322	.6
	acres	836 343	.6
180 to 219 acres	farms	3 710	.7
	acres	734 224	.7
220 to 259 acres	farms	2 611	.8
	acres	621 286	.8
260 to 499 acres	farms	7 697	.6
	acres	2 731 893	.6
500 to 999 acres	farms	4 587	.6
	acres	3 137 706	.6
1,000 to 1,999 acres	farms	1 792	–
	acres	2 390 620	–
2,000 acres or more	farms	454	–
	acres	1 307 083	–
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM			
Oilseed and grain farming (1111)	farms	29 719	.5
	acres	9 039 244	.4
Vegetable and melon farming (1112)	farms	1 082	1.0
	acres	131 951	.7
Fruit and tree nut farming (1113)	farms	785	1.2
	acres	47 244	1.5
Greenhouse, nursery, and floriculture production (1114)	farms	2 419	.8
	acres	128 432	1.0
Other crop farming (1119)	farms	8 303	.6
	acres	1 007 563	.6
Beef cattle ranching and farming (112111)	farms	10 951	.5
	acres	1 483 695	.5
Cattle feedlots (112112)	farms	2 793	.7
	acres	380 369	.8
Dairy cattle and milk production (11212)	farms	3 826	.7
	acres	1 083 332	.5
Hog and pig farming (1122)	farms	2 456	.7
	acres	402 441	.6
Poultry and egg production (1123)	farms	828	.9
	acres	93 655	.7
Sheep and goat farming (1124)	farms	1 292	1.0
	acres	77 859	1.5
Animal aquaculture and other animal production (1125, 1129)	farms	4 137	.7
	acres	227 300	.9

Item		Total	Relative standard error of estimate (percent)
LIVESTOCK			
Cattle and calves inventory	farms	28 244	.4
	number	1 282 546	.4
Beef cows	farms	17 060	.5
	number	293 570	.5
Milk cows	farms	5 425	.6
	number	262 834	.4
Cattle and calves sold	farms	26 278	.4
	number	711 149	.4
	$1,000	344 743	.4
Hogs and pigs inventory	farms	5 952	.5
	number	1 700 491	.3
Hogs and pigs sold	farms	5 938	.5
	number	3 531 228	.3
	$1,000	364 754	.3
Sheep and lambs of all ages inventory	farms	3 549	.7
	number	134 906	.9
Sheep and lambs sold	farms	3 338	.7
	number	113 631	.9
Horses and ponies inventory	farms	11 668	.5
	number	76 249	.6
Horses and ponies sold	farms	3 064	.7
	number	10 729	1.6
POULTRY			
Layers and pullets 13 weeks old and older inventory (see text)	farms	3 190	.7
	number	29 023 796	.2
Layers 20 weeks old and older	farms	3 065	.7
	number	26 135 888	.2
Broilers and other meat-type chickens sold	farms	496	1.3
	number	41 135 469	.8
SELECTED CROPS HARVESTED			
Corn for grain or seed	farms	31 517	.5
	acres	3 378 205	.3
	bushels	429 619 833	.3
Corn for silage or green chop	farms	5 526	.6
	acres	177 045	.5
	tons, green	2 710 560	.5
Wheat for grain	farms	18 747	.5
	acres	994 276	.4
	bushels	55 105 157	.4
Oats for grain	farms	5 728	.6
	acres	81 168	.6
	bushels	5 393 500	.6
Tobacco	farms	2 811	.6
	acres	11 457	.9
	pounds	21 629 638	.9
Soybeans for beans	farms	28 554	.5
	acres	4 115 575	.4
	bushels	172 972 596	.3
Potatoes, excluding sweetpotatoes	farms	281	1.8
	acres	5 182	1.0
	cwt	1 119 057	.7
Sugar beets for sugar	farms	33	3.9
	acres	1 824	3.2
	tons	32 282	3.8
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)	farms	31 475	.4
	acres	1 196 243	.4
	tons, dry	2 813 975	.4
Alfalfa hay	farms	18 851	.5
	acres	533 971	.5
	tons, dry	1 527 152	.5
Vegetables harvested for sale (see text)	farms	2 177	.7
	acres	45 591	.5
Land in orchards	farms	1 395	.9
	acres	14 078	1.1

[1]Data are based on a sample of farms.
[2]Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains.

Table D. Reliability Estimates of State Totals for Farms With Sales of $10,000 or More: 1997

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

Item		Total	Relative standard error of estimate (percent)
FARMS AND LAND IN FARMS			
Farms	number	35 874	.5
Land in farms	acres	11 753 965	.4
Average size of farm	acres	328	.6
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD			
Total sales (see text)	farms	35 874	.5
	$1,000	4 579 075	.2
Average per farm	dollars	127 643	.5
Farms by value of sales:			
$10,000 to $19,999	farms	8 651	.5
	$1,000	123 209	.6
$20,000 to $24,999	farms	2 793	.8
	$1,000	62 263	.8
$25,000 to $39,999	farms	5 309	.7
	$1,000	168 137	.7
$40,000 to $49,999	farms	2 229	.9
	$1,000	99 091	.9
$50,000 to $99,999	farms	6 150	.7
	$1,000	438 804	.7
$100,000 to $249,999	farms	6 657	.6
	$1,000	1 056 718	.6
$250,000 to $499,999	farms	2 702	–
	$1,000	931 354	–
$500,000 or more	farms	1 383	–
	$1,000	1 699 499	–
Sales by commodity or commodity group:			
Crops, including nursery and greenhouse crops	farms	31 716	.5
	$1,000	2 770 625	.3
Grains	farms	27 578	.5
	$1,000	2 155 024	.3
Corn for grain	farms	22 016	.5
	$1,000	903 594	.3
Wheat	farms	16 477	.5
	$1,000	172 932	.4
Soybeans	farms	23 888	.5
	$1,000	1 062 615	.3
Sorghum for grain	farms	11	9.0
	$1,000	81	14.6
Barley	farms	116	2.5
	$1,000	285	2.7
Oats	farms	1 622	.8
	$1,000	3 553	.9
Other grains	farms	464	1.2
	$1,000	11 964	.7
Cotton and cottonseed	farms	–	–
	$1,000	–	–
Tobacco	farms	1 534	.7
	$1,000	29 572	1.0
Hay, silage, and field seeds	farms	7 072	.6
	$1,000	62 104	.6
Vegetables, sweet corn, and melons	farms	1 442	.8
	$1,000	95 060	.4
Fruits, nuts, and berries	farms	577	1.2
	$1,000	19 447	.9
Nursery and greenhouse crops	farms	1 753	.8
	$1,000	398 736	.2
Other crops	farms	348	1.5
	$1,000	10 681	.9
Livestock, poultry, and their products	farms	18 082	.5
	$1,000	1 808 450	.2
Poultry and poultry products	farms	1 305	.8
	$1,000	572 510	.1
Dairy products	farms	4 690	.6
	$1,000	509 850	.4
Cattle and calves	farms	14 170	.5
	$1,000	309 770	.4
Hogs and pigs	farms	4 448	.6
	$1,000	361 993	.3
Sheep, lambs, and wool	farms	1 531	.9
	$1,000	6 734	1.3
Other livestock and livestock products (see text)	farms	1 725	.8
	$1,000	47 594	.8
Value of agricultural products sold directly to individuals for human consumption (see text)	farms	2 330	.7
	$1,000	24 216	.7

Item		Total	Relative standard error of estimate (percent)
FARM PRODUCTION EXPENSES[1]			
Total farm production expenses	farms	35 845	.5
	$1,000	3 412 297	.4
Average per farm	dollars	95 196	.6
Livestock and poultry purchased	farms	10 942	1.8
	$1,000	254 812	1.6
Feed for livestock and poultry	farms	16 516	1.3
	$1,000	694 512	.8
Commercially mixed formula feeds	farms	12 121	1.6
	$1,000	499 249	1.0
Seeds, bulbs, plants, and trees	farms	31 707	.7
	$1,000	231 958	.7
Commercial fertilizer	farms	31 525	.7
	$1,000	333 847	.8
Agricultural chemicals	farms	29 183	.8
	$1,000	218 433	.9
Petroleum products	farms	35 247	.5
	$1,000	165 721	.7
Electricity	farms	29 284	.7
	$1,000	49 238	.8
Hired farm labor	farms	13 563	1.5
	$1,000	310 904	.8
Contract labor	farms	3 117	3.7
	$1,000	17 785	3.2
Repair and maintenance	farms	33 033	.6
	$1,000	226 985	.8
Customwork, machine hire, and rental of machinery and equipment	farms	16 148	1.4
	$1,000	51 131	1.9
Interest	farms	20 429	1.1
	$1,000	213 560	1.2
Secured by real estate	farms	14 545	1.5
	$1,000	141 223	1.5
Not secured by real estate	farms	12 443	1.6
	$1,000	72 337	1.5
Cash rent	farms	16 094	1.3
	$1,000	271 089	1.1
Property taxes	farms	32 054	.6
	$1,000	71 321	1.0
All other farm production expenses	farms	35 843	.5
	$1,000	301 002	.7
NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)[1]			
All farms	number	35 845	.5
	$1,000	1 130 323	.9
Average per farm	dollars	31 534	1.0
Farms with net gains[2]	number	28 261	.8
	$1,000	1 239 070	.7
Average net gain	dollars	43 844	1.1
Farms with net losses	number	7 584	2.4
	$1,000	108 746	2.4
Average net loss	dollars	14 339	3.4
GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME			
Government payments	farms	20 781	.5
	$1,000	122 690	.4
Other farm-related income[1]	farms	11 989	1.7
	$1,000	60 232	3.6
Customwork and other agricultural services	farms	4 788	3.0
	$1,000	32 601	5.5
Gross cash rent or share payments	farms	2 113	4.8
	$1,000	14 285	7.1
Forest products, excluding Christmas trees and maple products	farms	972	7.4
	$1,000	6 178	9.8
Other farm-related income sources	farms	7 106	2.3
	$1,000	7 168	5.0
COMMODITY CREDIT CORPORATION LOANS			
Total	farms	2 438	.7
	$1,000	92 317	.5

See footnotes at end of table.

Table D. Reliability Estimates of State Totals for Farms With Sales of $10,000 or More: 1997—Con.

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

Item		Total	Relative standard error of estimate (percent)
LAND IN FARMS ACCORDING TO USE			
Total cropland	farms	34 796	.5
	acres	10 105 053	.4
Harvested cropland	farms	34 255	.5
	acres	9 324 876	.3
Cropland:			
Pasture or grazing only	farms	10 385	.5
	acres	481 162	.6
Total woodland	farms	18 525	.5
	acres	876 876	.5
Pastureland and rangeland other than cropland and woodland pastured	farms	6 067	.6
	acres	367 415	.6
Land in house lots, ponds, roads, wasteland, etc.	farms	23 955	.5
	acres	404 621	.5
Irrigated land	farms	1 333	.8
	acres	32 715	.5
Harvested cropland irrigated	farms	1 323	.8
	acres	32 408	.5
Pasture and other land irrigated	farms	23	5.8
	acres	307	6.1
Land under Conservation Reserve or Wetlands Reserve Programs	farms	3 912	.7
	acres	133 631	.8
VALUE OF LAND AND BUILDINGS[1]			
Estimated market value of land and buildings	farms	35 845	.5
	$1,000	23 071 102	.7
Average per farm	dollars	643 635	.9
Average per acre	dollars	1 987	.9
VALUE OF MACHINERY AND EQUIPMENT[1]			
Estimated market value of all machinery and equipment	farms	35 839	.5
	$1,000	3 208 609	.9
Average per farm	dollars	89 528	1.1
AGRICULTURAL CHEMICALS[1]			
Commercial fertilizer	farms	31 344	.7
	acres on which used	7 287 495	.7
TENURE OF OPERATOR			
All operators	farms	35 874	.5
	acres	11 753 965	.4
Full owners	farms	14 511	.5
	acres	2 410 083	.5
Part owners	farms	16 965	.5
	acres	8 062 815	.3
Tenants	farms	4 398	.7
	acres	1 281 067	.6
OWNED AND RENTED LAND			
Land owned	farms	31 651	.5
	acres	5 874 929	.4
Owned land in farms	farms	31 476	.5
	acres	5 476 864	.4
Land rented or leased from others	farms	21 454	.5
	acres	6 311 894	.3
	landlords	78 541	.4
Rented or leased land in farms	farms	21 363	.5
	acres	6 277 101	.3
Land rented or leased to others	farms	3 822	.7
	acres	432 858	.9
OPERATOR CHARACTERISTICS			
Operators by place of residence:			
On farm operated		28 020	.5
Not on farm operated		5 828	.7
Not reported		2 026	.7
Operators by principal occupation:			
Farming		22 146	.5
Other		13 728	.6
Operators by days worked off farm:			
Any		18 482	.5
200 days or more		12 042	.6
Operators by sex:			
Male		34 392	.5
Female		1 482	1.0
Average age of operator	years	51.9	.7
FARMS BY TYPE OF ORGANIZATION			
Individual or family (sole proprietorship)	farms	29 554	.5
	acres	8 652 672	.4
Partnership	farms	4 508	.7
	acres	2 108 521	.4
Corporation:			
Family held	farms	1 479	.8
	acres	855 307	.5
More than 10 stockholders	farms	43	3.7
10 or less stockholders	farms	1 436	.8
Other than family held	farms	123	2.2
	acres	46 820	1.7
More than 10 stockholders	farms	14	4.6
10 or less stockholders	farms	109	2.4
Other—cooperative, estate or trust, institutional, etc.	farms	210	2.1
	acres	90 645	1.3
HIRED FARM LABOR[1]			
Hired workers by days worked:			
150 days or more	farms	5 570	2.2
	workers	18 292	1.3
Less than 150 days	farms	12 038	1.6
	workers	46 372	1.9
INJURIES AND DEATHS			
Farm-related injuries:			
Operator and family members	farms	401	1.4
	number	447	1.5
Hired workers	farms	313	1.0
	number	651	.7
Farm-related deaths:			
Operator and family members	farms	12	–
	number	(D)	(D)
Hired workers	farms	–	–
	number	–	–
FARMS BY SIZE			
1 to 9 acres		1 354	.9
10 to 49 acres		2 764	.7
50 to 69 acres		1 820	.8
70 to 99 acres		3 812	.7
100 to 139 acres		4 412	.7
140 to 179 acres		3 495	.7
180 to 219 acres		2 725	.8
220 to 259 acres		2 014	.9
260 to 499 acres		6 788	.7
500 to 999 acres		4 459	.6
1,000 to 1,999 acres		1 779	–
2,000 acres or more		452	–
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM			
Oilseed and grain farming (1111)		20 691	.5
Vegetable and melon farming (1112)		599	1.2
Fruit and tree nut farming (1113)		221	1.8
Greenhouse, nursery, and floriculture production (1114)		1 500	.8
Other crop farming (1119)		2 638	.7
Beef cattle ranching and farming (112111)		2 211	.7
Cattle feedlots (112112)		1 118	1.0
Dairy cattle and milk production (11212)		3 732	.7
Hog and pig farming (1122)		1 760	.8
Poultry and egg production (1123)		582	.8
Sheep and goat farming (1124)		118	2.8
Animal aquaculture and other animal production (1125, 1129)		704	1.3
LIVESTOCK			
Cattle and calves inventory	farms	14 376	.5
	number	1 052 335	.4
Beef cows	farms	6 501	.6
	number	176 868	.6
Milk cows	farms	4 802	.6
	number	260 694	.4
Cattle and calves sold	farms	14 170	.5
	number	615 502	.4
	$1,000	309 770	.4
Hogs and pigs inventory	farms	4 282	.6
	number	1 676 492	.3
Hogs and pigs sold	farms	4 448	.6
	number	3 499 241	.3
	$1,000	361 993	.3
Sheep and lambs of all ages inventory	farms	1 553	.9
	number	81 283	1.2
Sheep and lambs sold	farms	1 451	.9
	number	75 328	1.1
Horses and ponies inventory	farms	3 931	.7
	number	29 558	.9
Horses and ponies sold	farms	1 197	1.0
	number	6 596	2.4

See footnotes at end of table.

Table D. **Reliability Estimates of State Totals for Farms With Sales of $10,000 or More: 1997**—Con.

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

Item		Total	Relative standard error of estimate (percent)
POULTRY			
Layers and pullets 13 weeks old and older inventory (see text)	farms	1 309	.9
	number	28 967 771	.2
Layers 20 weeks old and older	farms	1 250	.9
	number	26 088 861	.2
Broilers and other meat-type chickens sold	farms	329	1.5
	number	41 117 974	.8
SELECTED CROPS HARVESTED			
Corn for grain or seed	farms	25 772	.5
	acres	3 307 531	.3
	bushels	423 402 597	.3
Corn for silage or green chop	farms	5 031	.6
	acres	172 228	.5
	tons, green	2 652 632	.5
Wheat for grain	farms	16 591	.5
	acres	967 130	.4
	bushels	53 978 609	.4
SELECTED CROPS HARVESTED—Con.			
Oats for grain	farms	4 289	.6
	acres	69 890	.6
	bushels	4 784 626	.7
Tobacco	farms	1 539	.7
	acres	9 391	1.0
	pounds	18 432 008	1.0
Soybeans for beans	farms	23 915	.5
	acres	4 022 229	.4
	bushels	170 041 636	.3
Potatoes, excluding sweetpotatoes	farms	170	2.2
	acres	5 106	1.0
	cwt	1 107 670	.7
Sugar beets for sugar	farms	32	3.6
	acres	(D)	(D)
	tons	(D)	(D)
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)	farms	15 691	.5
	acres	830 442	.5
	tons, dry	2 163 356	.5
Alfalfa hay	farms	11 360	.5
	acres	410 496	.5
	tons, dry	1 271 636	.5
Vegetables harvested for sale (see text)	farms	1 444	.8
	acres	43 936	.5
Land in orchards	farms	466	1.3
	acres	9 586	1.3

[1]Data are based on a sample of farms.
[2]Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains.

Table E. **Reliability Estimates of Percent Change in State Totals: 1992 to 1997**

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

Item	All farms		Farms with sales of $10,000 or more	
	Percent change from 1992 to 1997	Standard error of estimate	Percent change from 1992 to 1997	Standard error of estimate
Farms ..... number	–3.0	1.1	–5.5	1.4
Land in farms ..... acres	–1.0	1.0	–1.3	1.1
Average size of farm ..... acres	2.5	1.6	4.5	1.9
Estimated market value of land and buildings[1]:				
Average per farm ..... dollars	42.2	2.4	45.2	2.9
Average per acre ..... dollars	40.0	2.4	40.0	2.6
Estimated market value of all machinery and equipment[1]:				
Average per farm ..... dollars	17.6	2.2	21.8	2.6
Farms by size:				
1 to 9 acres	–2.7	1.3	–12.2	1.3
10 to 49 acres	3.4	1.2	15.0	1.7
50 to 179 acres	–4.3	.8	–6.1	1.0
180 to 499 acres	–8.3	1.1	–10.5	1.1
500 to 999 acres	–4.3	1.2	–4.8	1.2
1,000 to 1,999 acres	4.2	–	4.2	–
2,000 acres or more	35.1	–	35.7	–
Total cropland ..... farms	–4.0	1.1	–5.2	1.4
acres	–1.6	1.0	–1.3	1.0
Harvested cropland ..... farms	–7.2	1.1	–5.2	1.4
acres	1.1	1.0	2.3	1.1
Irrigated land ..... farms	1.3	1.2	7.7	1.3
acres	15.3	1.1	20.6	1.1
Market value of agricultural products sold $1,000	19.7	.9	20.6	.9
Average per farm ..... dollars	23.4	1.7	27.6	2.1
Crops, including nursery and greenhouse crops $1,000	28.8	1.0	30.2	1.1
Livestock, poultry, and their products $1,000	8.0	.8	8.4	.8
Farms by value of sales:				
Less than $2,500	14.6	1.3	(X)	(X)
$2,500 to $4,999	–9.9	1.0	(X)	(X)
$5,000 to $9,999	–12.0	1.0	(X)	(X)
$10,000 to $24,999	–13.3	1.1	–13.3	1.1
$25,000 to $49,999	–9.3	1.4	–9.3	1.4
$50,000 to $99,999	–9.3	1.7	–9.3	1.7
$100,000 to $249,999	1.4	1.4	1.4	1.4
$250,000 to $499,999	22.2	–	22.2	–
$500,000 or more	54.5	–	54.5	–
Total farm production expenses[1] $1,000	15.7	1.0	16.4	1.1
Average per farm ..... dollars	19.3	1.7	23.0	2.1
Net cash return from agricultural sales for the farm unit (see text)[1] ..... farms	–3.0	1.1	–5.4	1.4
$1,000	32.1	2.0	32.0	1.9
Average per farm ..... dollars	36.1	2.6	39.5	2.9
Operators by principal occupation:				
Farming	–10.4	1.1	–10.4	1.3
Other	4.0	1.2	3.6	1.7
Operators by days worked off farm:				
Any	.9	1.2	–.3	1.6
200 days or more	1.4	1.2	1.3	1.7
Livestock and poultry:				
Cattle and calves inventory ..... farms	–5.5	1.1	–10.6	1.4
number	–5.9	1.0	–7.8	1.0
Beef cows ..... farms	1.0	1.2	.6	1.6
number	7.6	1.3	5.8	1.6
Milk cows ..... farms	–22.3	1.2	–23.9	1.3
number	–11.1	1.0	–11.2	1.0
Cattle and calves sold ..... farms	–5.7	1.1	–11.1	1.4
number	–7.9	.9	–10.2	.9
Hogs and pigs inventory ..... farms	–36.6	.8	–38.3	1.0
number	–13.1	.8	–12.3	.8
Hogs and pigs sold ..... farms	–38.4	.8	–39.1	.9
number	–10.3	.8	–9.4	.8
Sheep and lambs inventory ..... farms	–18.0	1.1	–19.9	1.5
number	–27.6	1.2	–29.6	1.4
Layers and pullets 13 weeks old and older inventory (see text) ..... farms	–18.3	1.1	–21.7	1.4
number	25.0	.3	25.1	.3
Broilers and other meat-type chickens sold ..... farms	–6.8	2.0	3.1	2.9
number	62.9	3.0	62.9	3.0
Selected crops harvested:				
Corn for grain or seed ..... farms	–15.6	1.1	–10.6	1.4
acres	–3.1	.9	–2.0	1.0
bushels	–8.0	.9	–7.2	.9
Corn for silage or green chop ..... farms	–17.8	1.3	–19.0	1.3
acres	.4	1.1	.3	1.1
tons, green	–8.7	1.0	–8.8	1.0
Wheat for grain ..... farms	–22.1	1.1	–16.4	1.2
acres	–8.7	1.0	–6.6	1.0
bushels	2.0	1.1	4.0	1.1
Oats for grain ..... farms	–28.8	1.1	–27.7	1.2
acres	–29.9	1.0	–29.3	1.1
bushels	–31.7	1.0	–31.4	1.1
Soybeans for beans ..... farms	–9.7	1.2	–3.3	1.4
acres	9.0	1.1	11.1	1.2
bushels	18.9	1.2	20.8	1.2
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) ..... farms	–4.9	1.1	–9.4	1.4
acres	–.4	1.2	–4.1	1.3
tons, dry	–4.6	1.1	–8.9	1.1
Vegetables harvested for sale (see text) ..... farms	–7.3	1.2	.1	1.5
acres	–17.1	.6	–16.3	.6

[1]Data are based on a sample of farms.

Table F. **Reliability Estimates for the State and County Totals: 1997**

[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[1]		Estimated market value of all machinery and equipment[1]	
	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)
Ohio	**68 591**	**.4**	**14 103 085**	**.3**	**206**	**.6**	**414 773**	**.8**	**3 952 140**	**.8**
Adams	1 315	.5	194 701	.8	148	1.0	209 292	7.1	45 941	6.8
Allen	918	.4	189 906	.8	207	.9	446 141	4.6	66 211	8.8
Ashland	929	.4	163 948	.8	176	.9	382 947	5.3	59 311	9.0
Ashtabula	993	.5	149 319	.9	150	1.0	241 977	4.8	49 395	8.3
Athens	481	.5	82 873	1.0	172	1.1	229 559	7.0	14 238	13.0
Auglaize	1 001	.4	213 219	.7	213	.8	464 180	4.1	74 847	6.7
Belmont	622	.4	148 287	.8	238	.9	212 954	6.3	25 934	15.5
Brown	1 378	.5	195 654	.9	142	1.1	268 801	5.2	57 646	7.2
Butler	849	.5	134 506	1.0	158	1.2	517 084	6.7	42 399	5.7
Carroll	683	.4	113 338	.9	166	1.0	235 710	5.1	29 444	8.1
Champaign	836	.4	221 584	.7	265	.8	560 610	3.1	62 990	4.2
Clark	671	.4	172 026	.8	256	.9	595 179	3.3	48 031	5.8
Clermont	744	.6	88 298	1.3	119	1.5	321 509	7.6	28 159	9.2
Clinton	761	.6	222 922	.8	293	1.0	606 000	3.9	51 275	4.1
Columbiana	980	.5	138 197	.8	141	.9	266 508	4.9	47 471	6.0
Coshocton	864	.4	170 087	.7	197	.8	292 837	5.9	48 906	11.5
Crawford	712	.4	226 641	.6	318	.7	577 797	3.1	59 630	6.4
Cuyahoga	118	.5	4 268	4.8	36	4.9	435 200	11.3	7 127	5.0
Darke	1 726	.4	329 475	.6	191	.7	460 346	2.7	115 518	2.8
Defiance	861	.5	186 385	.9	216	1.0	382 411	7.5	48 909	7.4
Delaware	627	.4	160 770	.8	256	.9	721 125	4.8	33 213	5.8
Erie	380	.4	89 871	1.0	237	1.0	482 690	6.4	31 252	6.1
Fairfield	1 024	.5	196 930	.9	192	1.0	481 505	4.9	55 663	5.1
Fayette	520	.4	242 573	.5	466	.7	914 031	2.3	52 070	3.4
Franklin	407	.5	79 620	1.1	196	1.3	587 588	5.4	26 092	9.6
Fulton	794	.6	197 309	.8	249	1.0	554 345	3.5	56 936	6.9
Gallia	776	.6	117 180	1.1	151	1.2	200 004	6.9	26 762	7.1
Geauga	661	.6	59 238	1.5	90	1.6	348 155	6.7	19 294	6.7
Greene	764	.4	178 332	.8	233	.9	549 034	4.2	52 216	8.0
Guernsey	802	.6	137 653	.9	172	1.0	166 917	6.1	22 022	9.4
Hamilton	302	.5	29 153	1.6	97	1.6	383 803	7.7	10 719	8.8
Hancock	979	.5	277 209	.8	283	.9	650 762	4.2	74 532	6.3
Hardin	837	.6	246 852	.9	295	1.1	483 248	3.4	51 247	6.1
Harrison	423	.5	109 685	.9	259	1.1	233 847	8.7	18 579	13.5
Henry	872	.4	244 305	.6	280	.7	596 444	4.0	68 311	4.8
Highland	1 239	.5	242 450	.8	196	1.0	354 224	4.8	59 805	7.9
Hocking	353	.5	47 950	1.5	136	1.5	219 650	13.2	11 267	10.2
Holmes	1 404	.4	171 732	.7	122	.8	349 203	5.2	61 536	7.8
Huron	782	.6	231 586	.7	296	.9	454 376	3.0	71 317	4.9
Jackson	408	.4	74 035	1.1	181	1.2	222 050	9.3	20 750	8.7
Jefferson	410	.6	71 304	1.4	174	1.5	155 906	7.7	10 774	10.5
Knox	1 103	.5	206 255	.9	187	1.0	364 165	6.8	54 724	7.1
Lake	274	.4	19 053	1.4	70	1.5	388 257	4.6	16 626	6.5
Lawrence	490	.8	59 454	1.4	121	1.6	125 599	7.5	10 992	7.7
Licking	1 218	.4	237 014	.7	195	.8	466 330	2.6	68 301	6.8
Logan	895	.5	218 957	.7	245	.9	383 294	4.6	50 601	6.2
Lorain	778	.4	130 631	.8	168	.9	476 507	3.7	65 466	6.0
Lucas	385	.4	79 583	1.0	207	1.1	627 988	6.2	32 877	4.1
Madison	667	.5	262 350	.6	393	.8	809 729	3.6	62 512	6.4
Mahoning	542	.4	73 415	1.0	135	1.0	321 846	5.5	26 216	5.1
Marion	543	.5	220 683	.7	406	.8	701 416	3.0	60 409	4.7
Medina	851	.5	104 060	1.0	122	1.1	432 900	7.1	42 190	8.2
Meigs	491	.4	84 761	1.2	173	1.2	201 459	9.3	13 938	6.9
Mercer	1 255	.4	260 935	.5	208	.6	582 282	3.8	101 293	5.2
Miami	983	.5	192 376	.8	196	.9	561 826	3.7	55 267	4.6
Monroe	589	.3	109 650	.8	186	.8	160 795	5.8	22 565	14.0
Montgomery	760	.4	105 965	1.1	139	1.2	409 818	6.4	42 660	9.7
Morgan	500	.5	98 265	.9	197	1.0	186 129	8.4	12 275	8.7
Morrow	759	.4	161 202	.8	212	.9	379 932	5.6	35 081	4.7
Muskingum	1 018	.4	180 034	.7	177	.8	204 280	4.9	41 366	7.5
Noble	519	.4	99 003	.8	191	.8	156 439	8.6	13 131	10.2
Ottawa	474	.4	105 771	.9	223	.9	469 769	5.1	34 149	12.8
Paulding	542	.5	209 983	.7	387	.9	614 545	4.3	45 564	5.1
Perry	606	.6	96 603	1.2	159	1.3	216 608	8.3	20 284	10.9
Pickaway	703	.4	267 300	.6	380	.7	784 227	3.6	55 200	5.2
Pike	435	.6	78 311	1.2	180	1.4	230 011	8.3	19 053	15.5
Portage	719	.4	87 453	1.1	122	1.2	371 633	6.7	28 944	6.5
Preble	977	.4	197 141	.7	202	.8	424 071	4.0	53 912	5.0
Putnam	1 352	.4	292 335	.6	216	.7	452 408	4.1	96 472	4.2
Richland	908	.6	155 516	1.0	171	1.2	328 597	4.8	48 597	8.0
Ross	885	.6	251 675	.7	284	.9	431 653	4.7	42 290	4.8
Sandusky	795	.4	199 446	.7	251	.8	439 147	5.3	58 301	6.3
Scioto	630	.5	102 981	1.0	163	1.1	218 310	8.2	21 539	8.6
Seneca	1 210	.5	292 662	.8	242	1.0	429 675	3.9	80 669	5.2
Shelby	991	.4	201 998	.7	204	.8	491 120	4.6	60 868	5.1
Stark	1 086	.4	136 737	.8	126	.9	346 693	3.9	47 253	5.1
Summit	251	.5	17 235	2.1	69	2.1	340 804	14.5	7 625	10.9
Trumbull	788	.4	112 477	1.0	143	1.1	282 609	6.0	41 925	7.9
Tuscarawas	920	.6	141 358	1.0	154	1.2	308 350	6.1	41 582	6.9
Union	811	.4	204 693	.7	252	.8	530 649	6.2	58 116	5.9
Van Wert	707	.3	237 244	.6	336	.6	718 770	4.5	73 027	6.2
Vinton	202	.5	37 111	1.4	184	1.5	184 743	11.3	4 406	15.5
Warren	741	.4	118 430	.8	160	.9	553 790	7.3	37 858	7.5
Washington	900	.4	146 504	.8	163	.9	214 087	8.9	34 382	8.1

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[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[1]		Estimated market value of all machinery and equipment[1]	
	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)
Wayne	1 601	.5	240 905	.7	150	.8	402 208	3.2	101 420	4.9
Williams	908	.6	203 201	.9	224	1.0	342 144	4.0	45 129	6.0
Wood	1 015	.5	303 986	.7	299	.9	633 489	3.0	90 749	5.4
Wyandot	608	.4	209 012	.7	344	.9	565 793	3.6	56 596	4.3

Geographic area	Average market value of all machinery and equipment per farm[1]		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses[1]			
							Total farm production expenses			
							Farms		Value	
	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)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Ohio	**57 624**	**.9**	**4 684 277**	**.3**	**68 293**	**.5**	**68 591**	**.4**	**3 608 839**	**.4**
Adams	34 936	6.9	27 278	1.2	20 744	1.3	1 315	.6	21 754	8.2
Allen	72 204	8.9	59 375	.8	64 678	.9	917	.6	45 115	3.5
Ashland	63 913	9.0	48 933	.8	52 672	.9	928	.6	40 931	2.5
Ashtabula	49 844	8.3	34 907	.9	35 153	1.0	991	.6	30 969	4.4
Athens	29 601	13.0	6 208	1.8	12 906	1.9	481	.9	6 692	16.1
Auglaize	74 847	6.7	85 557	.6	85 472	.7	1 000	.6	67 634	1.8
Belmont	41 494	15.5	12 308	1.7	19 788	1.8	625	.7	9 499	8.8
Brown	41 833	7.2	37 773	1.0	27 412	1.1	1 378	.6	28 801	4.4
Butler	49 939	5.7	35 032	1.1	41 262	1.2	849	.7	29 820	3.8
Carroll	42 983	8.1	21 278	1.1	31 153	1.2	685	.7	16 432	4.0
Champaign	75 257	4.2	71 281	.6	85 265	.7	837	.6	55 468	2.0
Clark	71 582	5.8	73 418	.5	109 416	.7	671	.6	56 843	1.9
Clermont	37 849	9.2	16 665	1.6	22 399	1.7	744	.7	12 355	8.5
Clinton	67 467	4.2	65 828	.8	86 502	1.0	760	.8	46 572	2.4
Columbiana	48 489	6.1	46 923	.8	47 880	.9	979	.6	36 041	4.6
Coshocton	56 538	11.5	37 124	.8	42 968	.9	865	.6	31 125	3.5
Crawford	83 867	6.4	75 204	.5	105 623	.7	711	.6	56 943	1.6
Cuyahoga	60 397	5.3	17 147	.9	145 310	1.0	118	1.7	12 716	1.5
Darke	66 851	2.9	247 071	.3	143 147	.5	1 728	.5	216 073	.8
Defiance	56 805	7.5	45 248	.9	52 553	1.0	861	.6	31 374	4.8
Delaware	53 398	5.9	53 806	.6	85 814	.8	628	.6	41 320	2.9
Erie	82 241	6.2	35 462	.8	93 321	.9	380	.8	25 976	4.0
Fairfield	54 305	5.2	51 306	.9	50 103	1.1	1 025	.7	40 018	2.4
Fayette	100 328	3.5	72 179	.5	138 805	.6	519	.6	48 722	1.8
Franklin	64 267	9.6	41 165	.6	101 143	.8	406	.8	26 629	2.4
Fulton	71 617	6.9	87 848	.6	110 639	.9	795	.8	69 475	1.7
Gallia	34 487	7.1	15 155	1.3	19 529	1.4	776	.7	12 909	6.0
Geauga	29 101	6.8	18 282	1.5	27 658	1.6	663	.8	15 303	4.5
Greene	68 346	8.0	58 595	.7	76 695	.8	764	.7	42 123	3.5
Guernsey	27 425	9.5	10 754	1.8	13 408	1.9	803	.8	9 149	16.7
Hamilton	35 495	8.8	17 301	.8	57 289	1.0	302	.8	11 950	5.8
Hancock	76 130	6.3	81 864	.7	83 620	.9	979	.6	55 306	2.3
Hardin	61 227	6.1	114 970	.5	137 360	.8	837	.8	77 085	1.9
Harrison	43 923	13.5	10 010	1.5	23 664	1.6	423	.8	7 096	6.7
Henry	78 338	4.8	75 092	.6	86 114	.7	872	.5	51 158	2.6
Highland	48 268	7.9	46 179	.9	37 271	1.1	1 239	.6	35 809	3.0
Hocking	31 917	10.2	3 432	3.6	9 724	3.6	353	.9	4 361	12.4
Holmes	43 860	7.8	87 815	.6	62 546	.8	1 403	.6	73 590	2.3
Huron	91 199	4.9	77 539	.6	99 154	.8	782	.7	54 355	1.7
Jackson	50 859	8.8	17 515	.7	42 928	.8	408	.7	15 843	4.9
Jefferson	26 151	10.5	6 703	2.3	16 348	2.3	412	.8	5 566	8.1
Knox	49 614	7.1	61 891	.8	56 111	1.0	1 103	.6	49 054	2.6
Lake	60 239	6.6	73 572	.3	268 510	.5	276	.8	55 122	.9
Lawrence	22 432	7.8	3 954	1.7	8 070	1.8	490	1.0	3 300	7.8
Licking	56 076	6.8	128 880	.3	105 813	.5	1 218	.5	109 335	.9
Logan	56 601	6.2	89 077	.5	99 528	.7	894	.6	70 844	1.7
Lorain	84 255	6.1	82 972	.3	106 647	.5	777	.6	66 376	1.6
Lucas	85 395	4.1	60 875	.4	158 117	.6	385	.7	48 748	1.5
Madison	93 721	6.4	80 277	.6	120 355	.8	667	.7	54 842	2.6
Mahoning	48 458	5.2	31 997	.8	59 035	.8	541	.7	26 210	3.6
Marion	111 250	4.7	64 262	.6	118 347	.7	543	.8	50 211	2.6
Medina	49 577	8.2	34 080	.9	40 047	1.0	851	.7	27 401	5.8
Meigs	28 388	6.9	12 982	1.2	26 439	1.3	491	.7	9 561	6.6
Mercer	80 776	5.2	287 662	.2	229 213	.4	1 254	.5	234 829	.7
Miami	56 109	4.7	64 097	.8	65 206	.9	985	.6	43 592	3.1
Monroe	38 246	14.0	7 398	1.7	12 560	1.7	590	.7	7 531	10.6
Montgomery	56 131	9.7	36 178	1.0	47 603	1.1	760	.6	27 984	3.4
Morgan	24 501	8.8	8 402	1.4	16 804	1.5	501	.8	6 734	9.3
Morrow	46 281	4.8	41 635	.8	54 855	.9	758	.7	30 476	3.7
Muskingum	40 635	7.5	25 776	.9	25 320	1.0	1 018	.5	20 489	5.5
Noble	25 204	10.2	3 823	1.3	7 366	1.4	521	.7	4 152	12.0
Ottawa	72 045	12.8	28 643	.7	60 427	.8	474	.8	23 414	5.0
Paulding	84 066	5.2	54 144	.6	99 897	.8	542	.7	32 334	2.4
Perry	33 473	11.0	15 351	1.6	25 331	1.7	606	.8	12 455	8.0

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Average market value of all machinery and equipment per farm[1]		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses[1]			
							Total farm production expenses			
							Farms		Value	
	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)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Pickaway	78 633	5.3	79 338	.5	112 857	.6	702	.6	53 844	1.8
Pike	43 900	15.5	7 517	1.7	17 281	1.8	434	.9	6 891	13.2
Portage	40 369	6.5	23 778	1.0	33 071	1.1	717	.8	18 652	5.1
Preble	55 181	5.0	67 931	.6	69 531	.7	977	.6	51 596	3.5
Putnam	71 355	4.2	102 883	.5	76 097	.6	1 352	.5	73 546	2.2
Richland	53 580	8.0	47 145	1.1	51 922	1.3	907	.7	38 392	5.9
Ross	47 785	4.9	45 806	.8	51 758	1.0	885	.8	35 975	3.8
Sandusky	73 242	6.3	66 000	.6	83 018	.7	796	.6	48 307	3.6
Scioto	34 189	8.6	13 937	1.3	22 123	1.4	630	.7	11 425	6.9
Seneca	66 724	5.2	83 691	.7	69 166	.9	1 209	.6	63 026	2.8
Shelby	61 421	5.2	71 798	.7	72 451	.8	991	.6	54 954	2.6
Stark	43 551	5.1	72 998	.5	67 217	.7	1 085	.6	62 695	1.9
Summit	30 502	10.9	8 932	1.8	35 586	1.9	250	1.1	6 977	14.7
Trumbull	53 408	8.0	25 467	1.1	32 319	1.2	785	.7	22 415	6.5
Tuscarawas	45 149	7.0	56 229	.8	61 119	1.0	921	.8	45 876	3.0
Union	71 748	6.0	69 625	.5	85 851	.7	810	.6	49 913	2.0
Van Wert	103 291	6.2	72 552	.5	102 619	.6	707	.5	48 935	2.5
Vinton	21 814	15.5	1 704	2.0	8 437	2.1	202	1.2	1 710	11.7
Warren	51 159	7.6	33 781	.8	45 589	.9	740	.6	26 464	6.3
Washington	38 118	8.1	20 428	1.2	22 698	1.2	902	.6	17 372	3.7
Wayne	63 388	4.9	155 757	.5	97 287	.7	1 600	.6	123 554	1.5
Williams	49 647	6.1	51 383	.8	56 590	1.0	909	.7	40 952	2.7
Wood	89 408	5.4	96 452	.6	95 027	.8	1 015	.7	65 708	2.1
Wyandot	93 085	4.3	63 690	.6	104 753	.8	608	.7	47 769	1.8

Geographic area	Farm production expenses[1]—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)
Ohio	**18 692**	**1.4**	**267 858**	**1.5**	**31 975**	**1.0**	**713 397**	**.8**	**44 036**	**.7**	**237 751**	**.7**
Adams	293	11.1	950	14.6	565	6.6	3 815	23.8	797	4.8	1 190	20.1
Allen	174	14.7	2 299	18.0	250	12.3	6 600	19.1	754	2.6	3 403	6.1
Ashland	366	8.7	2 592	11.6	522	6.4	6 683	5.7	660	3.3	2 518	4.7
Ashtabula	284	10.4	1 524	11.2	463	7.4	6 525	11.7	508	6.5	1 717	6.2
Athens	141	18.0	134	30.3	329	7.5	1 152	16.1	151	17.8	115	17.6
Auglaize	313	10.5	5 606	14.1	415	8.7	17 114	3.6	840	2.2	4 194	7.6
Belmont	207	13.1	1 139	12.9	427	6.4	2 345	14.5	142	15.2	134	15.6
Brown	252	13.5	830	10.1	565	7.5	1 487	18.2	803	4.9	2 305	6.1
Butler	361	9.2	3 143	26.2	514	6.6	2 947	13.3	510	5.5	2 564	8.8
Carroll	203	13.0	533	14.2	377	7.2	2 211	12.5	377	6.6	633	8.7
Champaign	251	10.1	3 042	8.9	451	6.2	7 312	9.8	537	3.7	4 482	4.1
Clark	195	14.0	2 627	3.3	276	11.4	2 770	10.7	409	4.2	4 725	2.5
Clermont	160	19.9	200	28.8	303	11.5	435	13.6	398	9.3	871	17.8
Clinton	136	17.6	718	4.5	228	13.5	2 842	8.9	580	4.0	4 530	4.3
Columbiana	244	13.1	2 652	22.2	571	6.7	7 827	5.3	580	6.2	1 968	8.2
Coshocton	379	8.0	2 987	13.4	549	5.5	5 423	7.1	509	5.8	1 739	5.7
Crawford	190	12.5	3 705	9.3	279	9.9	6 097	4.6	574	2.9	4 578	6.7
Cuyahoga	11	22.6	(D)	(D)	25	16.4	120	23.6	57	7.5	2 015	.6
Darke	572	6.2	26 629	3.3	782	5.0	106 571	1.9	1 411	2.0	5 875	2.8
Defiance	128	20.5	1 889	9.1	223	15.0	4 212	26.3	619	3.1	2 713	6.7
Delaware	152	15.9	1 687	46.4	318	9.0	3 020	18.5	401	4.8	7 041	1.7
Erie	123	15.1	1 156	22.0	184	10.3	2 125	16.0	280	4.5	2 784	4.2
Fairfield	300	12.4	2 212	21.5	514	7.6	3 507	6.2	613	5.5	3 290	4.9
Fayette	155	16.1	914	11.3	231	10.7	2 001	6.2	406	4.7	4 552	3.6
Franklin	97	22.1	515	24.3	173	13.7	975	9.9	212	8.4	3 784	2.2
Fulton	230	11.4	10 605	6.4	318	8.9	8 036	7.7	645	3.6	4 429	3.6
Gallia	267	11.2	1 674	7.4	487	6.6	1 731	13.3	385	7.7	409	13.0
Geauga	206	11.7	1 354	20.8	401	6.7	2 198	17.2	368	6.8	950	12.6
Greene	135	17.9	1 311	12.3	331	9.6	2 901	16.7	526	3.7	4 001	5.9
Guernsey	244	12.0	707	13.3	494	6.4	1 348	21.1	251	13.4	358	42.6
Hamilton	29	46.3	628	23.4	133	16.0	426	15.4	175	10.3	1 048	13.7
Hancock	176	15.2	2 184	17.4	255	11.9	4 185	15.8	868	2.4	4 833	2.9
Hardin	124	20.1	8 893	1.7	203	13.7	22 364	2.1	649	4.0	3 829	3.4
Harrison	132	17.8	1 239	6.5	266	8.9	908	4.3	109	15.5	96	15.4
Henry	107	20.7	1 561	7.5	185	14.9	2 153	16.6	786	2.6	5 196	8.0
Highland	236	14.2	3 206	7.4	544	7.2	2 064	11.6	823	3.6	2 857	5.7
Hocking	158	14.5	403	40.6	264	7.5	354	13.0	157	12.6	220	34.0
Holmes	778	5.5	8 334	9.2	1 155	2.4	34 570	4.9	973	3.2	1 654	7.6
Huron	244	12.1	2 447	12.7	319	9.5	4 166	7.1	574	4.3	4 074	3.4
Jackson	138	15.7	(D)	(D)	248	9.9	1 470	4.3	140	17.9	242	30.2
Jefferson	102	22.0	514	6.0	243	11.1	789	11.2	171	10.8	152	17.5
Knox	340	10.4	9 485	2.3	624	6.5	5 140	14.6	689	4.7	2 830	7.5
Lake	49	29.3	259	46.7	69	22.5	280	31.1	149	10.7	4 776	2.1
Lawrence	107	20.7	82	29.8	260	10.4	449	30.1	215	10.7	88	22.7

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Farm production expenses[1]—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)
Licking	363	9.7	3 122	8.6	678	5.3	35 623	1.5	647	4.4	3 081	3.2
Logan	285	11.9	7 837	4.8	477	8.1	19 817	3.5	553	4.7	3 060	5.5
Lorain	115	17.9	2 056	19.6	205	13.9	2 849	4.0	537	5.2	8 687	2.6
Lucas	48	31.4	2 553	12.7	92	19.0	7 780	2.4	298	5.8	3 420	2.9
Madison	178	14.4	1 956	3.5	279	10.4	3 440	9.1	510	3.3	4 826	3.6
Mahoning	148	15.2	2 613	38.2	311	6.6	4 431	11.8	344	6.3	852	6.4
Marion	118	16.0	3 100	2.6	176	13.0	3 426	10.6	400	3.9	3 733	4.0
Medina	229	13.4	1 488	9.3	398	8.2	3 356	14.7	540	4.7	1 591	12.1
Meigs	122	18.4	512	34.3	299	7.6	824	13.2	158	12.7	582	10.3
Mercer	543	5.9	30 822	3.5	619	4.8	133 744	1.0	1 030	2.2	5 032	3.1
Miami	177	15.1	1 732	11.7	340	10.0	4 348	10.2	753	3.6	4 250	3.5
Monroe	178	13.1	532	17.3	411	6.5	2 065	19.9	186	12.4	85	21.4
Montgomery	175	15.6	526	26.1	263	12.8	1 390	10.5	541	5.3	3 054	5.4
Morgan	148	17.5	340	14.9	336	7.7	2 090	21.9	186	11.0	166	15.1
Morrow	160	15.8	2 092	6.5	280	10.6	4 054	10.6	444	5.5	2 057	4.4
Muskingum	299	11.1	3 180	18.6	727	3.8	3 483	8.3	463	7.7	981	12.3
Noble	190	13.8	372	14.6	366	6.7	522	7.5	102	18.1	57	22.4
Ottawa	67	31.3	360	9.6	108	21.8	1 139	28.5	374	6.4	1 873	6.6
Paulding	31	26.4	919	19.9	66	22.8	4 255	4.9	453	4.0	2 852	4.0
Perry	162	14.1	1 018	15.8	318	8.1	1 371	30.7	284	8.5	707	13.2
Pickaway	227	13.0	2 598	17.0	278	11.6	4 245	6.7	489	5.2	5 227	2.4
Pike	70	26.3	389	14.7	212	10.8	1 211	42.5	165	12.5	333	12.5
Portage	212	13.0	804	15.5	379	7.7	2 129	9.6	316	8.2	1 016	16.9
Preble	304	10.5	5 399	22.1	483	6.7	7 978	7.0	689	3.6	3 279	5.6
Putnam	297	10.9	4 486	10.0	359	9.8	12 194	5.5	1 204	2.1	5 798	6.3
Richland	341	9.6	3 807	26.0	534	6.6	7 791	16.7	568	5.7	2 328	6.8
Ross	269	12.3	2 565	26.6	474	7.4	2 348	14.6	479	6.8	3 199	4.7
Sandusky	159	17.0	1 462	29.6	212	14.4	1 758	19.6	641	3.7	3 973	6.2
Scioto	119	19.3	655	10.6	326	9.3	1 716	4.3	318	9.2	857	16.9
Seneca	318	10.6	4 853	16.0	440	8.5	5 288	13.8	1 014	2.7	4 742	5.7
Shelby	257	12.3	4 409	15.4	346	9.2	10 983	8.4	773	2.5	4 196	5.1
Stark	339	10.2	6 256	6.3	546	6.5	18 966	3.9	703	4.3	2 549	14.7
Summit	75	23.9	144	40.3	133	14.1	382	28.4	128	13.1	661	6.8
Trumbull	198	14.0	2 525	24.5	366	9.3	2 455	15.1	458	6.1	1 538	11.8
Tuscarawas	329	9.7	2 476	20.5	573	5.9	17 898	8.1	510	6.4	1 163	10.0
Union	203	13.0	4 520	2.4	335	9.5	5 425	6.2	519	4.2	3 280	4.5
Van Wert	92	20.9	1 174	6.5	174	13.4	6 341	4.0	648	2.0	4 707	5.4
Vinton	31	33.7	(D)	(D)	101	14.7	314	40.6	63	20.1	68	24.8
Warren	200	14.6	1 005	11.1	331	7.9	1 990	33.6	380	5.8	3 055	3.7
Washington	312	10.9	1 660	16.5	583	5.8	2 798	7.7	393	7.5	1 003	16.4
Wayne	709	6.2	12 599	7.6	1 098	3.3	42 418	3.6	1 073	3.3	4 125	4.8
Williams	143	14.5	6 182	9.0	216	11.7	3 987	7.6	531	4.1	3 449	6.9
Wood	153	16.7	2 113	19.1	217	14.0	3 096	12.6	891	2.7	7 259	3.6
Wyandot	110	18.1	2 449	9.9	177	14.1	8 030	3.3	499	4.1	3 233	4.5

Geographic area	Farm production expenses[1]—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)
Ohio	**47 671**	**.7**	**345 896**	**.8**	**40 577**	**.8**	**224 526**	**.9**	**64 360**	**.5**	**180 186**	**.7**
Adams	1 110	2.6	2 632	14.5	605	6.1	918	17.4	1 238	1.8	1 716	13.8
Allen	762	3.1	7 171	9.0	691	3.4	4 037	6.8	858	2.1	2 888	7.4
Ashland	652	3.2	4 453	6.9	659	4.2	2 877	6.5	890	1.5	2 560	6.6
Ashtabula	628	5.1	1 919	9.0	477	7.0	1 154	10.1	927	1.8	1 716	4.9
Athens	228	13.1	320	12.3	115	20.5	112	11.6	464	1.9	341	6.8
Auglaize	820	2.9	7 042	6.0	746	3.7	4 903	6.1	899	2.0	3 236	7.5
Belmont	311	9.0	489	8.5	129	17.8	65	9.3	603	1.9	597	7.8
Brown	1 175	2.3	5 242	10.0	766	5.2	2 660	7.7	1 316	1.6	1 774	4.5
Butler	561	5.5	3 103	7.9	450	7.0	1 884	9.3	820	1.7	1 555	5.7
Carroll	447	5.1	1 088	11.9	323	8.8	574	9.4	665	1.5	956	5.5
Champaign	577	3.9	6 507	4.5	508	4.9	4 792	4.1	782	2.0	2 786	3.9
Clark	407	5.4	6 053	4.8	409	6.2	3 800	5.0	649	1.8	2 859	4.7
Clermont	512	6.3	1 711	17.0	362	9.3	766	14.3	700	2.7	841	13.6
Clinton	603	4.4	7 640	4.6	538	4.7	4 773	6.0	751	1.4	2 629	4.4
Columbiana	646	5.4	2 190	7.7	512	6.9	1 499	9.2	928	1.7	1 770	3.9
Coshocton	533	5.6	2 593	8.5	456	7.1	1 550	8.8	819	2.1	1 702	5.7
Crawford	590	3.2	8 012	3.9	565	3.6	4 806	4.5	683	1.6	3 449	3.1
Cuyahoga	60	6.8	98	4.7	59	7.6	91	8.8	108	3.1	891	1.6
Darke	1 368	2.4	10 364	3.8	1 387	2.4	7 186	4.6	1 648	1.1	5 179	2.5
Defiance	595	4.4	4 443	8.6	624	4.1	3 111	6.5	741	2.8	1 915	5.0
Delaware	412	5.5	4 036	4.5	407	4.6	2 774	4.8	572	2.8	2 018	4.2
Erie	255	5.6	2 434	4.6	273	6.7	2 028	7.1	363	2.6	1 649	3.4
Fairfield	651	5.1	5 474	5.6	586	5.8	3 354	7.7	978	1.8	2 648	5.8
Fayette	398	5.0	8 702	3.0	365	6.8	5 142	4.9	481	2.7	2 937	4.0

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Farm production expenses[1]—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)
Franklin	246	7.6	2 187	6.1	242	8.4	1 418	9.0	376	3.7	1 887	2.9
Fulton	663	3.0	7 530	3.9	617	4.4	4 614	4.3	778	1.4	3 490	4.0
Gallia	536	5.5	1 155	9.1	291	9.4	296	23.0	705	2.3	825	9.4
Geauga	400	6.3	619	11.7	302	8.2	343	22.3	623	2.3	819	6.5
Greene	564	3.6	5 424	5.6	551	4.0	3 768	4.5	712	2.2	2 163	6.7
Guernsey	439	8.4	1 051	40.4	182	16.8	281	46.5	721	2.9	769	24.1
Hamilton	164	12.2	629	11.8	120	15.6	259	18.5	288	3.0	750	6.3
Hancock	840	2.8	8 817	4.9	823	3.0	5 414	3.9	946	1.3	3 525	4.2
Hardin	662	4.1	6 604	5.2	546	5.5	4 232	5.4	794	1.9	3 024	4.0
Harrison	199	11.8	395	16.8	137	16.6	245	13.3	393	3.5	506	13.5
Henry	787	2.4	9 081	4.6	720	3.5	4 913	6.8	830	1.9	2 971	4.2
Highland	834	4.0	5 186	7.7	711	5.4	3 237	9.2	1 155	1.6	2 302	5.2
Hocking	244	7.8	354	14.6	112	15.6	143	23.2	342	2.3	352	14.0
Holmes	1 035	3.4	2 508	9.0	954	3.5	1 243	8.3	1 297	1.6	2 582	3.6
Huron	547	4.8	6 427	4.7	551	4.7	4 454	5.3	746	2.2	3 211	3.7
Jackson	276	7.7	653	21.5	87	22.2	280	44.6	389	2.7	612	7.1
Jefferson	209	10.6	358	14.9	160	13.5	196	36.3	402	1.4	467	9.9
Knox	648	5.2	4 379	7.1	579	5.7	3 227	9.1	1 034	2.0	2 684	4.7
Lake	158	9.0	830	2.7	140	10.3	722	5.7	261	2.9	1 832	3.3
Lawrence	329	6.4	287	15.1	169	11.7	86	24.3	452	3.5	317	13.1
Licking	701	4.7	5 022	7.0	632	4.2	3 616	4.3	1 126	1.8	3 397	2.3
Logan	562	5.9	4 790	7.3	537	5.9	3 421	7.5	751	3.3	2 598	2.9
Lorain	582	4.4	3 078	5.1	516	5.2	2 816	7.1	751	1.6	4 268	5.4
Lucas	252	7.0	2 871	6.0	242	8.7	2 251	7.9	366	2.6	2 825	2.4
Madison	514	4.3	8 345	3.8	471	4.8	5 729	6.3	595	3.2	3 147	4.4
Mahoning	366	6.1	1 562	9.3	325	7.2	1 079	9.1	507	2.5	1 441	7.6
Marion	386	5.3	7 888	4.6	381	4.9	5 559	5.2	515	2.2	3 049	3.6
Medina	553	5.6	1 690	9.3	476	7.1	1 442	14.0	813	1.7	1 661	5.4
Meigs	266	8.4	643	19.5	140	14.3	222	24.3	473	1.9	952	10.4
Mercer	1 012	2.6	9 191	3.6	945	3.0	4 406	5.7	1 182	1.8	5 150	3.7
Miami	818	2.8	5 468	5.3	773	3.4	4 403	5.3	936	1.8	2 496	4.1
Monroe	337	7.5	409	15.1	205	11.1	91	17.9	551	2.3	506	9.7
Montgomery	520	6.0	3 214	6.2	450	7.2	2 291	9.6	718	2.4	1 411	5.7
Morgan	307	8.4	432	11.7	156	15.6	101	30.9	476	2.8	388	12.6
Morrow	418	5.9	3 734	4.9	372	5.9	2 834	10.8	675	3.0	2 014	3.6
Muskingum	573	6.6	1 753	10.6	340	9.8	696	13.4	972	1.5	1 251	7.8
Noble	283	8.8	455	27.6	53	28.4	53	40.2	477	2.9	331	7.5
Ottawa	382	5.8	2 906	7.6	358	6.8	2 500	10.2	463	2.3	1 215	4.4
Paulding	392	5.2	4 342	4.8	408	5.2	3 366	4.6	481	2.5	2 092	5.4
Perry	329	8.4	1 211	13.3	249	9.7	693	13.0	576	2.2	704	10.0
Pickaway	483	5.4	8 258	3.0	457	6.8	5 404	3.4	653	2.8	2 881	4.5
Pike	257	8.2	650	9.5	108	15.6	278	14.8	398	2.7	528	12.1
Portage	375	7.7	1 388	11.9	298	8.9	819	11.4	673	2.0	887	5.8
Preble	696	4.1	6 476	5.1	647	4.5	4 549	5.9	909	1.8	2 790	5.5
Putnam	1 212	2.1	8 591	4.4	1 153	2.4	6 169	4.8	1 301	1.1	4 002	5.3
Richland	547	6.2	3 238	7.5	533	5.9	2 264	8.1	827	3.0	2 499	8.5
Ross	550	5.9	4 739	4.6	398	8.2	3 476	4.6	802	2.5	2 283	4.6
Sandusky	602	4.4	6 910	6.0	588	4.5	5 053	7.8	772	1.9	2 496	6.3
Scioto	455	5.3	1 604	15.8	256	10.5	747	11.1	590	3.0	643	8.2
Seneca	950	3.0	8 838	5.5	952	3.0	5 700	7.5	1 165	1.4	3 908	5.5
Shelby	783	2.6	5 886	5.5	758	3.3	4 345	6.1	869	2.3	2 999	6.2
Stark	727	4.1	2 558	5.9	611	5.5	1 752	8.1	1 030	1.8	2 564	10.1
Summit	155	8.8	258	15.6	125	12.6	157	32.7	239	2.6	414	7.6
Trumbull	457	6.3	2 106	11.6	416	6.6	1 236	14.5	751	1.9	1 116	7.8
Tuscarawas	595	5.2	2 411	13.3	472	6.4	1 122	10.8	885	1.8	1 967	7.0
Union	537	4.4	5 423	5.4	546	4.1	3 881	5.8	702	2.5	2 741	4.0
Van Wert	621	2.4	7 686	3.5	573	2.8	4 942	8.1	677	1.7	3 292	4.1
Vinton	106	13.2	197	17.8	24	37.8	46	36.1	188	3.8	163	15.2
Warren	401	5.8	2 707	8.2	367	5.4	2 111	5.6	684	2.4	1 219	7.1
Washington	560	5.2	1 443	9.8	374	7.7	760	12.8	863	1.6	1 123	6.7
Wayne	1 076	3.6	5 890	7.1	981	4.0	3 341	6.5	1 487	1.7	4 471	6.0
Williams	512	4.3	4 745	5.6	544	4.1	3 350	4.9	805	3.0	2 169	5.2
Wood	864	3.0	10 066	3.8	881	2.8	6 897	4.7	976	1.9	3 827	3.9
Wyandot	516	3.7	6 635	4.1	480	4.4	4 333	5.7	583	2.2	2 611	3.5

Geographic area	Farm production expenses[1]—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)
Ohio	**47 360**	**.7**	**54 824**	**.7**	**19 017**	**1.4**	**314 865**	**.8**	**4 587**	**3.2**	**19 117**	**3.0**
Adams	756	5.6	517	11.8	561	6.7	1 010	14.8	172	15.5	365	27.1
Allen	707	4.4	564	6.9	180	13.7	1 047	12.4	72	27.0	95	24.7
Ashland	720	3.2	809	4.1	209	11.4	2 602	4.8	78	21.6	214	10.5
Ashtabula	729	4.2	794	5.6	342	9.3	4 192	9.3	87	21.8	377	32.7

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Farm production expenses[1]—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)
Athens	272	9.2	117	8.8	120	20.6	1 268	48.3	31	46.4	38	60.2
Auglaize	690	4.9	1 012	5.3	257	12.1	2 675	6.7	28	38.2	466	41.1
Belmont	465	5.6	213	11.5	124	17.5	670	40.9	34	45.2	71	74.5
Brown	847	4.6	541	7.7	453	8.6	1 351	16.6	96	22.1	177	19.5
Butler	563	5.7	551	9.4	227	13.0	1 954	22.1	46	34.6	130	59.1
Carroll	514	4.3	362	6.4	136	15.8	2 905	4.2	39	32.2	320	68.9
Champaign	637	3.5	856	4.9	275	9.1	2 917	7.6	47	23.7	261	34.0
Clark	499	5.6	851	3.6	181	12.8	10 720	.2	34	33.6	127	27.3
Clermont	451	8.6	226	11.3	250	13.2	1 428	14.9	109	24.2	244	31.3
Clinton	487	6.4	565	5.1	225	11.8	2 194	12.8	66	29.3	139	8.3
Columbiana	647	5.0	875	6.2	317	9.8	4 584	8.0	79	24.4	506	14.8
Coshocton	617	4.7	441	5.6	214	13.0	2 895	2.7	50	30.6	100	24.9
Crawford	552	4.3	635	4.5	190	12.6	3 130	16.5	35	31.9	373	3.8
Cuyahoga	79	7.6	292	2.9	63	7.7	4 506	1.4	12	23.1	101	26.7
Darke	1 323	2.7	2 540	2.4	518	7.4	8 428	2.1	110	20.2	167	18.1
Defiance	567	5.8	545	12.5	174	15.8	583	9.2	47	39.1	82	33.2
Delaware	471	5.3	512	8.0	233	10.2	5 450	3.9	53	23.1	416	20.1
Erie	264	6.3	514	5.4	114	14.5	3 393	11.0	25	36.0	101	15.6
Fairfield	643	5.3	605	9.6	349	10.7	3 027	18.5	59	30.4	268	58.5
Fayette	386	6.9	651	4.3	244	9.3	2 537	4.4	29	27.9	109	28.5
Franklin	293	7.8	419	4.6	103	17.8	5 060	1.3	37	36.1	875	13.3
Fulton	652	3.9	911	5.2	230	10.3	3 885	1.9	40	32.1	77	15.8
Gallia	535	5.4	270	6.9	338	9.4	1 167	7.7	71	26.0	255	31.2
Geauga	420	6.7	388	8.6	190	12.4	1 960	12.5	57	24.4	284	13.1
Greene	533	5.4	631	5.5	210	11.5	3 542	1.3	85	25.2	112	22.5
Guernsey	503	6.0	200	10.5	121	22.3	346	32.8	45	39.5	57	63.5
Hamilton	193	10.4	222	6.7	91	18.6	3 994	12.5	31	42.7	159	16.3
Hancock	733	4.0	562	4.9	210	12.7	1 892	14.2	89	21.6	180	23.0
Hardin	515	6.4	828	4.3	197	14.0	4 165	4.4	47	34.1	626	7.2
Harrison	238	10.8	150	9.5	34	39.1	677	1.0	49	33.4	76	43.3
Henry	671	4.2	621	6.3	185	13.9	2 573	3.0	63	25.7	273	19.6
Highland	794	4.6	500	6.9	402	9.6	1 239	16.9	60	28.3	80	22.6
Hocking	215	9.6	96	26.7	103	18.3	108	74.2	7	73.2	3	64.1
Holmes	878	4.7	812	6.6	359	10.3	2 837	10.2	43	32.9	81	32.0
Huron	599	4.6	807	3.9	178	13.4	6 826	2.9	49	26.1	99	28.0
Jackson	289	8.0	553	4.4	147	16.3	(D)	(D)	11	82.7	11	32.9
Jefferson	274	7.0	143	13.9	78	25.9	547	38.1	17	56.9	46	48.1
Knox	749	4.4	716	6.6	272	11.7	3 075	9.3	55	29.6	349	15.1
Lake	166	9.4	543	4.1	128	11.1	29 402	.9	36	29.1	148	20.3
Lawrence	314	8.2	117	13.4	211	13.1	150	15.4	50	35.5	35	54.5
Licking	786	4.5	1 753	2.0	257	11.4	17 844	1.1	116	19.7	324	19.9
Logan	574	5.8	976	4.0	247	11.8	7 866	5.9	63	30.7	100	38.9
Lorain	522	6.0	1 139	3.3	244	10.3	15 814	2.0	57	29.3	697	2.5
Lucas	291	6.0	841	3.0	108	16.8	10 022	2.8	29	34.0	472	3.6
Madison	538	4.2	690	5.0	207	11.6	2 597	5.1	44	27.7	154	25.6
Mahoning	393	5.4	649	4.8	155	13.3	4 750	6.0	41	33.4	62	43.3
Marion	399	5.4	551	6.2	150	11.9	2 152	4.3	27	38.7	46	35.9
Medina	596	5.4	498	5.9	287	11.3	3 749	6.0	51	33.1	82	33.6
Meigs	316	6.7	228	21.5	149	15.1	2 376	13.9	26	35.9	33	14.5
Mercer	1 046	2.9	3 029	2.5	425	6.7	5 233	4.0	90	14.4	224	8.6
Miami	720	4.6	722	5.5	226	11.8	1 684	11.7	54	30.8	229	8.1
Monroe	397	6.6	235	12.6	162	13.6	383	29.9	40	33.9	32	52.8
Montgomery	595	4.9	541	6.3	233	13.0	4 171	6.9	82	24.5	149	28.4
Morgan	235	11.5	128	15.0	80	23.1	499	23.2	42	34.4	71	25.5
Morrow	489	5.6	448	7.7	214	13.1	1 525	8.5	14	29.7	73	5.7
Muskingum	666	4.1	393	8.5	179	16.2	906	3.2	32	34.8	260	6.1
Noble	364	5.9	97	9.9	67	24.7	113	10.2	43	32.3	101	68.4
Ottawa	340	7.4	353	7.7	152	14.1	2 454	11.5	31	37.9	215	4.3
Paulding	341	6.6	441	2.8	130	13.0	1 716	4.4	61	23.7	188	28.4
Perry	365	7.3	187	12.9	147	15.1	1 135	10.0	36	33.3	26	48.8
Pickaway	463	6.4	533	7.3	195	12.9	2 465	4.0	61	31.1	760	19.6
Pike	210	10.4	121	16.2	64	31.2	321	28.8	8	76.3	55	(H)
Portage	393	7.4	373	9.5	215	11.9	2 411	5.5	16	34.0	134	2.2
Preble	750	4.1	760	7.3	277	10.1	1 544	4.6	72	26.3	127	37.1
Putnam	1 024	3.3	1 161	4.4	298	10.7	3 934	6.0	79	23.6	371	24.2
Richland	649	4.7	645	8.8	181	14.8	2 231	3.0	58	28.3	156	43.2
Ross	507	6.7	438	8.7	230	13.4	1 524	8.9	68	26.8	535	5.4
Sandusky	616	4.7	727	5.7	139	16.1	4 831	1.4	45	35.0	724	3.9
Scioto	383	8.4	173	6.4	163	15.4	574	6.1	43	36.1	105	46.5
Seneca	975	3.4	875	5.5	290	11.0	2 419	15.7	27	38.1	664	1.7
Shelby	706	4.2	951	6.2	249	10.5	1 876	6.6	55	28.4	156	36.5
Stark	822	4.2	1 200	4.7	372	9.0	9 230	5.1	99	21.5	214	20.8
Summit	151	11.2	130	14.0	83	20.0	1 916	34.7	26	44.0	98	37.1
Trumbull	508	5.9	602	14.5	194	12.8	1 578	10.7	82	24.8	126	31.3
Tuscarawas	587	5.6	954	11.2	262	10.9	4 508	9.5	35	32.6	108	21.7
Union	522	5.5	751	4.8	254	10.8	5 426	1.9	62	26.6	330	52.1
Van Wert	525	4.8	587	6.5	160	13.5	1 370	3.8	38	34.2	410	4.8
Vinton	78	15.5	32	25.1	44	24.9	(D)	(D)	5	61.4	15	10.6
Warren	475	5.6	423	11.3	286	10.5	3 102	2.8	72	20.7	143	12.9
Washington	620	5.0	400	7.3	231	12.4	1 399	12.6	74	28.7	140	47.1

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Farm production expenses[1]—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)
Wayne	1 233	3.1	2 109	3.5	679	6.7	10 118	4.7	55	20.3	271	22.1
Williams	582	5.6	587	6.7	187	14.2	1 173	5.1	37	29.0	92	8.2
Wood	703	4.9	856	5.9	261	10.5	6 001	9.0	88	21.0	252	13.3
Wyandot	455	5.5	464	4.4	141	11.6	2 166	2.6	23	34.4	518	2.2

Geographic area	Farm production expenses[1]—Con.											
	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest			
	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)
Ohio	**57 400**	**.6**	**258 610**	**.8**	**23 037**	**1.3**	**54 657**	**1.8**	**28 926**	**1.1**	**238 538**	**1.1**
Adams	1 014	3.6	2 353	9.0	332	9.6	363	14.3	450	8.6	1 573	14.1
Allen	737	3.4	3 250	8.5	413	8.5	882	14.4	439	7.8	3 751	14.6
Ashland	866	1.9	3 937	4.3	334	9.7	588	14.0	469	7.4	3 395	10.2
Ashtabula	844	2.7	2 583	6.4	222	12.9	426	9.9	325	10.4	1 841	8.0
Athens	384	4.0	613	7.6	60	26.9	30	17.8	155	15.3	704	22.8
Auglaize	793	3.1	4 193	4.8	502	7.3	1 840	21.7	472	7.6	4 010	7.1
Belmont	518	4.3	1 010	9.9	111	20.1	175	39.6	210	11.5	660	15.6
Brown	1 080	3.5	2 781	7.3	397	9.7	740	22.8	553	7.9	2 461	11.0
Butler	738	3.2	2 733	8.2	258	12.1	266	15.1	261	12.4	2 082	11.3
Carroll	575	3.8	2 303	7.3	146	15.8	381	39.1	210	12.0	926	16.2
Champaign	750	2.6	3 967	6.0	343	8.1	1 184	10.5	451	6.1	4 119	6.4
Clark	582	4.1	3 760	7.1	266	10.1	925	9.9	355	7.6	4 118	6.1
Clermont	581	5.1	1 391	15.6	182	17.1	157	19.4	199	17.6	1 160	20.2
Clinton	648	3.5	3 972	6.5	387	9.1	1 519	20.2	331	9.2	3 986	7.0
Columbiana	817	3.6	3 030	6.2	297	12.2	532	13.0	398	9.7	2 532	8.4
Coshocton	776	3.0	2 722	8.6	269	11.5	505	15.2	382	8.6	2 653	11.3
Crawford	671	2.0	4 174	5.0	253	10.9	647	8.6	363	7.8	4 198	6.4
Cuyahoga	95	3.4	864	3.1	14	22.5	(D)	(D)	42	8.8	344	6.1
Darke	1 482	2.1	9 395	3.3	713	6.1	1 610	8.9	937	4.6	9 230	5.3
Defiance	720	3.4	3 037	8.0	248	13.8	466	27.5	373	9.8	2 652	8.3
Delaware	554	3.4	2 496	6.0	258	10.2	600	5.7	297	8.9	2 645	10.5
Erie	347	3.4	2 104	5.1	151	12.9	361	14.1	166	11.1	1 474	9.9
Fairfield	837	3.7	3 656	8.8	304	10.1	710	15.4	358	9.3	2 977	10.6
Fayette	392	5.8	3 434	4.2	190	11.2	1 045	9.5	323	8.2	4 234	6.1
Franklin	339	6.2	2 048	5.8	99	18.4	334	22.7	152	14.3	1 590	7.6
Fulton	702	3.5	3 934	5.3	401	8.1	1 358	9.5	470	6.3	4 996	6.4
Gallia	595	4.5	1 357	7.5	205	12.9	225	20.1	292	10.8	1 033	11.8
Geauga	501	4.9	1 360	10.9	164	14.2	247	15.0	244	11.4	1 239	15.5
Greene	643	3.5	3 201	6.6	298	10.7	939	12.0	287	10.2	2 918	9.5
Guernsey	624	4.9	1 274	16.5	200	17.0	102	23.0	225	14.5	556	16.7
Hamilton	278	4.2	917	15.4	27	48.7	29	3.7	83	20.2	553	13.8
Hancock	816	3.5	4 269	4.9	468	7.8	915	11.5	516	6.3	4 926	7.7
Hardin	644	4.3	4 263	5.5	348	10.2	804	10.5	429	8.1	4 448	8.9
Harrison	322	6.8	675	11.8	44	35.9	93	64.6	84	25.0	507	40.1
Henry	780	2.9	3 676	6.8	380	9.2	943	10.4	497	6.5	3 702	9.1
Highland	1 036	3.0	3 283	9.4	309	11.4	778	18.9	596	7.0	3 939	8.1
Hocking	299	5.0	579	17.5	83	19.6	280	39.1	99	17.4	711	28.7
Holmes	1 187	2.5	4 369	7.5	552	7.3	1 009	8.1	597	6.9	3 721	8.3
Huron	667	3.1	4 449	3.4	304	8.7	846	11.7	377	7.4	3 837	5.3
Jackson	346	4.9	935	11.0	96	21.7	151	37.3	129	16.8	710	27.0
Jefferson	370	4.4	711	13.5	82	26.7	65	26.6	156	13.4	526	26.8
Knox	924	3.2	4 046	7.5	319	9.8	871	13.4	496	7.4	3 257	8.7
Lake	189	8.2	1 583	2.6	41	23.1	255	.5	72	14.3	2 228	1.9
Lawrence	382	6.1	376	11.7	92	22.2	60	24.4	118	20.3	383	29.5
Licking	1 054	2.4	8 428	2.7	333	9.8	1 085	8.4	426	8.6	2 901	7.9
Logan	654	4.8	3 952	4.4	363	10.3	1 262	8.9	410	9.0	4 791	7.4
Lorain	715	2.6	4 767	3.4	220	11.4	385	6.7	309	9.4	4 286	4.1
Lucas	339	5.0	2 585	3.6	179	12.9	1 041	3.6	182	11.1	1 661	7.5
Madison	596	3.2	3 924	5.8	378	7.8	1 267	7.9	367	7.5	4 885	6.0
Mahoning	464	4.1	1 840	5.8	194	12.0	405	12.8	230	11.2	1 207	9.1
Marion	481	2.7	3 409	4.5	206	11.0	811	11.3	316	7.0	4 300	4.4
Medina	748	2.7	2 514	7.4	307	10.7	743	19.8	245	11.8	1 892	10.9
Meigs	434	3.6	802	11.0	125	17.5	79	21.0	131	16.3	694	19.1
Mercer	1 154	2.0	7 926	2.6	639	5.9	1 649	7.1	677	5.0	8 025	4.1
Miami	756	4.2	3 944	6.4	398	9.3	808	13.1	429	7.5	3 763	10.2
Monroe	476	5.0	1 137	10.3	138	17.1	75	18.8	163	14.7	397	20.3
Montgomery	658	3.4	2 276	11.3	299	9.6	593	18.3	250	11.1	1 970	14.9
Morgan	411	5.1	678	7.2	103	21.5	46	22.8	140	16.2	501	16.6
Morrow	617	4.2	2 265	4.8	228	11.7	533	10.8	278	10.6	2 236	10.2
Muskingum	818	3.9	1 856	7.0	272	13.0	428	22.7	233	12.7	1 318	23.6
Noble	421	4.9	580	12.1	65	25.1	71	67.5	146	15.6	433	25.4
Ottawa	442	3.4	1 793	6.3	200	15.3	368	26.9	203	14.0	1 750	13.7
Paulding	414	4.4	2 869	5.2	165	12.3	450	12.2	277	8.2	3 074	6.2
Perry	458	4.8	1 454	14.5	173	13.1	259	25.1	218	11.9	943	18.1

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Farm production expenses[1]—Con.											
	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest			
	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)
Pickaway	543	5.2	4 601	4.6	266	11.6	954	11.4	331	8.0	3 778	7.2
Pike	367	5.2	867	12.2	90	23.7	121	38.1	118	22.0	550	22.5
Portage	578	4.0	2 285	7.7	170	14.3	415	25.7	212	12.1	1 533	12.9
Preble	846	2.8	3 941	5.7	358	9.5	579	11.8	475	7.1	4 434	16.6
Putnam	1 178	2.2	5 598	5.7	666	6.3	1 197	13.2	694	5.9	6 185	8.8
Richland	712	4.2	3 231	7.5	239	14.2	421	15.4	402	8.0	2 753	16.4
Ross	702	4.0	2 876	5.7	208	15.4	437	15.2	393	9.0	2 782	6.8
Sandusky	729	2.3	3 597	9.1	303	10.4	1 258	12.5	435	7.6	3 494	8.0
Scioto	481	5.7	1 061	9.9	131	17.6	249	27.7	188	14.1	788	18.8
Seneca	1 080	2.2	5 429	5.1	503	8.1	910	11.3	587	6.5	5 534	7.4
Shelby	799	3.4	4 065	6.6	349	9.4	626	11.7	457	6.4	3 887	12.1
Stark	962	2.7	4 029	5.9	280	12.2	585	11.2	390	8.8	3 347	12.6
Summit	188	6.2	949	20.9	40	29.9	68	45.9	76	22.4	488	49.1
Trumbull	676	3.4	2 455	20.5	221	13.6	434	15.5	271	10.4	1 885	19.1
Tuscarawas	780	3.4	3 073	7.2	302	10.8	840	10.4	314	9.4	2 094	8.0
Union	640	3.8	3 514	4.6	293	10.9	860	10.6	332	8.8	3 519	9.7
Van Wert	606	3.2	3 492	6.0	297	9.3	585	13.5	395	7.0	4 403	9.7
Vinton	172	6.1	247	23.2	23	35.0	(D)	(D)	68	19.2	146	31.5
Warren	576	4.2	2 101	6.3	212	13.5	617	17.5	261	10.1	2 126	12.8
Washington	716	3.9	1 774	6.4	208	14.3	260	18.3	312	10.3	1 187	15.9
Wayne	1 396	2.2	8 691	3.6	750	5.7	2 055	10.8	746	5.5	7 477	6.6
Williams	711	3.5	2 791	5.4	344	9.1	779	12.8	571	5.6	3 658	5.5
Wood	881	3.0	4 755	5.0	410	8.3	1 178	12.1	487	6.9	4 526	6.0
Wyandot	526	3.6	3 127	4.2	227	11.4	557	8.5	343	7.2	3 428	7.8

Geographic area	Farm production expenses[1]—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)
Ohio	**18 757**	**1.3**	**273 619**	**1.1**	**63 031**	**.5**	**103 622**	**.8**	**61 699**	**.5**	**321 371**	**.7**
Adams	181	14.8	775	27.4	1 199	2.0	1 029	8.8	1 098	3.0	2 548	13.6
Allen	323	8.3	4 821	11.0	803	3.0	1 467	9.3	834	2.5	2 840	8.0
Ashland	349	7.4	2 545	7.0	897	1.5	1 397	3.9	886	1.7	3 761	3.1
Ashtabula	207	13.1	749	10.8	958	1.6	1 304	4.1	901	2.4	4 149	6.9
Athens	52	32.0	50	36.6	463	2.6	723	16.0	406	4.4	975	41.2
Auglaize	377	8.1	4 794	10.2	881	2.8	1 590	6.8	905	2.0	4 959	3.8
Belmont	103	18.5	436	28.8	588	2.4	581	6.1	516	4.0	914	8.8
Brown	244	10.6	2 152	8.8	1 287	1.7	1 594	12.3	1 219	2.5	2 706	6.4
Butler	238	12.8	2 877	12.2	790	2.5	1 424	5.8	766	3.1	2 608	7.6
Carroll	150	13.6	512	13.7	638	2.3	656	6.3	576	3.5	2 073	6.5
Champaign	288	8.5	6 444	6.7	749	2.3	1 433	5.7	762	2.4	5 366	5.5
Clark	246	10.2	5 874	5.8	600	3.4	1 431	7.1	591	3.5	6 202	4.4
Clermont	130	20.5	882	22.3	709	2.6	825	7.7	634	4.2	1 217	8.3
Clinton	268	10.8	5 974	8.9	652	3.7	1 337	5.7	679	3.2	3 754	7.0
Columbiana	269	11.8	1 029	11.6	926	2.3	1 287	8.4	871	2.9	3 761	5.4
Coshocton	220	12.2	1 510	13.4	825	1.9	1 064	6.0	776	2.7	3 242	4.0
Crawford	321	7.4	8 107	4.8	633	3.0	1 431	9.7	684	1.6	3 603	7.2
Cuyahoga	20	24.6	75	16.4	112	3.0	401	9.5	112	2.6	2 283	1.8
Darke	546	6.9	8 989	6.4	1 545	2.0	2 957	5.9	1 577	1.6	10 950	3.2
Defiance	195	15.6	1 927	15.9	793	2.9	1 156	8.0	784	2.5	2 642	8.8
Delaware	200	11.8	4 387	5.2	596	2.3	1 133	5.3	595	2.3	3 106	5.4
Erie	162	10.6	2 498	7.3	353	2.9	762	5.5	348	2.7	2 591	7.0
Fairfield	237	10.9	3 261	9.0	935	2.4	1 356	6.1	949	2.1	3 674	5.1
Fayette	208	10.6	7 042	4.6	429	4.6	1 194	5.0	482	3.2	4 226	2.6
Franklin	118	16.5	1 786	7.7	372	3.9	791	9.3	388	3.1	2 959	3.6
Fulton	341	8.4	8 944	5.3	718	3.1	1 512	5.5	757	2.2	5 153	4.1
Gallia	116	18.0	507	28.3	750	1.7	571	5.6	680	3.1	1 434	6.0
Geauga	128	16.1	405	16.6	629	1.9	1 068	5.2	568	3.7	2 067	5.4
Greene	224	11.5	6 114	7.5	648	3.9	1 298	6.7	666	2.9	3 799	15.7
Guernsey	109	22.2	297	48.2	759	2.5	837	5.5	721	2.7	966	17.1
Hamilton	25	32.9	536	13.8	289	3.0	560	10.3	258	6.5	1 239	12.6
Hancock	341	8.1	7 540	6.7	918	2.2	1 926	6.4	924	1.8	4 139	5.8
Hardin	286	9.1	6 730	8.3	696	4.1	1 430	7.9	744	3.0	4 843	4.8
Harrison	90	20.6	362	10.2	404	3.1	447	10.1	360	4.2	722	9.0
Henry	352	8.0	7 932	6.9	781	2.8	1 754	12.7	844	1.6	3 809	5.6
Highland	258	10.7	2 865	8.6	1 110	2.3	1 300	5.8	1 082	2.2	2 972	6.7
Hocking	53	21.5	39	29.3	341	2.6	405	8.6	277	6.5	313	13.2
Holmes	331	10.9	1 785	14.1	1 323	1.7	2 497	3.7	1 315	1.6	5 588	9.3
Huron	267	9.4	5 504	8.2	722	2.3	1 252	4.5	735	2.5	5 955	3.8
Jackson	37	29.7	205	33.5	400	1.7	468	7.5	348	3.7	1 759	3.7
Jefferson	53	28.1	59	30.3	412	.8	340	8.0	354	4.4	652	14.9
Knox	296	9.1	3 167	10.5	1 029	2.1	1 743	5.7	987	2.4	4 085	7.8
Lake	28	21.1	784	1.6	269	1.8	637	5.4	253	2.1	10 843	1.1
Lawrence	34	40.4	23	46.7	469	2.7	341	9.1	419	4.0	505	12.3

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Farm production expenses[1]—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)
Licking	289	9.8	3 704	5.6	1 126	2.0	2 300	4.2	1 115	1.9	17 134	1.1
Logan	243	12.9	4 009	3.1	860	2.0	1 541	6.1	759	3.0	4 825	5.7
Lorain	245	11.7	2 339	10.0	726	2.6	1 791	6.1	692	3.2	11 406	1.3
Lucas	159	7.3	3 802	9.8	333	4.6	789	6.3	355	3.6	5 836	3.6
Madison	262	9.8	7 175	7.6	572	3.6	1 701	5.8	619	2.2	5 006	3.5
Mahoning	140	15.5	1 037	14.7	512	2.6	727	4.9	485	2.9	3 553	6.1
Marion	228	9.2	7 321	4.3	507	2.2	1 514	3.1	519	1.6	3 351	5.9
Medina	176	15.6	1 308	14.9	835	1.5	1 501	5.1	747	3.2	3 886	10.6
Meigs	80	22.2	257	17.9	482	1.7	454	6.4	424	4.0	904	9.7
Mercer	450	7.4	6 205	6.7	1 177	1.8	2 788	4.3	1 141	1.7	11 405	2.8
Miami	283	8.9	4 376	10.6	842	3.2	1 389	4.8	849	3.0	3 980	5.5
Monroe	68	22.9	67	26.5	572	1.7	441	6.5	552	2.5	1 076	15.2
Montgomery	206	12.4	2 869	12.4	687	3.1	1 459	6.4	686	2.8	2 069	6.4
Morgan	96	18.1	142	15.4	466	3.3	323	6.5	466	3.0	827	6.9
Morrow	189	11.8	3 211	9.1	699	2.5	1 010	6.0	710	2.5	2 389	7.6
Muskingum	163	16.3	603	13.5	954	2.0	985	4.3	920	2.1	2 395	8.3
Noble	113	18.4	136	31.8	491	2.4	374	6.2	464	3.1	457	16.6
Ottawa	183	13.0	3 892	10.8	433	3.9	818	7.1	441	3.6	1 778	8.2
Paulding	122	13.2	2 071	9.2	515	2.0	896	7.1	512	2.3	2 802	4.4
Perry	86	18.4	758	18.3	575	1.7	675	6.3	530	3.3	1 312	12.8
Pickaway	229	11.8	6 482	3.4	606	3.9	1 411	7.2	634	3.2	4 248	2.4
Pike	50	34.5	342	38.9	416	2.7	440	9.3	319	6.3	684	13.1
Portage	161	12.7	769	10.4	680	2.1	1 145	6.1	644	2.5	2 543	5.8
Preble	189	12.5	4 657	9.1	910	2.4	1 555	5.9	856	2.5	3 529	4.0
Putnam	509	7.1	6 486	7.1	1 188	2.3	1 705	5.4	1 212	1.8	5 670	7.0
Richland	169	14.7	2 569	16.4	841	2.5	1 261	6.4	832	2.7	3 199	7.9
Ross	205	12.5	4 520	7.5	837	2.1	1 046	7.1	776	3.0	3 207	5.6
Sandusky	313	8.9	7 126	8.6	713	2.9	1 191	6.4	760	1.6	3 708	5.7
Scioto	106	17.9	435	15.0	613	1.7	704	14.2	518	4.2	1 115	13.0
Seneca	420	7.6	7 409	10.3	1 009	3.2	1 701	7.0	1 161	1.5	4 757	5.6
Shelby	358	8.1	5 022	6.9	907	2.2	1 341	4.5	893	2.2	4 212	5.4
Stark	334	8.7	1 910	5.8	997	2.1	1 541	5.0	945	2.8	5 995	3.5
Summit	61	18.1	150	22.8	215	5.5	481	8.8	219	4.2	681	7.3
Trumbull	207	12.0	1 007	17.8	738	2.2	1 049	6.8	720	2.7	2 304	9.5
Tuscarawas	230	11.9	1 506	20.5	870	2.0	1 259	8.5	822	2.8	4 497	6.4
Union	280	8.6	5 007	4.8	743	2.7	1 483	5.8	728	2.3	3 754	2.8
Van Wert	236	10.7	4 010	9.0	638	2.6	1 523	6.4	667	2.1	4 413	6.0
Vinton	15	49.2	43	28.3	179	3.7	176	11.6	161	7.1	163	13.6
Warren	172	13.5	2 336	8.8	656	3.2	1 199	8.4	673	2.4	2 330	10.2
Washington	182	13.4	371	11.7	877	1.4	854	6.0	750	3.4	2 201	8.5
Wayne	591	6.9	4 670	7.9	1 422	2.2	2 623	4.8	1 535	1.1	12 696	3.7
Williams	265	9.7	3 936	9.7	829	2.5	1 153	4.8	803	2.7	2 902	5.5
Wood	416	7.3	8 030	4.6	876	2.6	1 781	5.6	941	2.2	5 069	4.1
Wyandot	257	9.0	6 252	6.0	507	4.7	816	4.7	513	4.0	3 151	3.9

Geographic area	Net cash return from agricultural sales for the farm unit (see text)[1]				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)
Ohio	**68 591**	**.4**	**1 039 324**	**1.0**	**63 669**	**.4**	**11 340 967**	**.3**	**58 048**	**.4**	**9 900 570**	**.3**
Adams	1 315	.6	5 810	18.1	1 266	.5	110 346	1.0	1 154	.6	59 014	1.2
Allen	917	.6	13 180	7.8	853	.5	172 737	.9	799	.5	166 576	.9
Ashland	928	.6	9 079	11.1	864	.5	128 036	.9	772	.6	108 172	1.0
Ashtabula	991	.6	4 571	15.6	955	.5	102 903	1.0	871	.6	72 153	1.1
Athens	481	.9	–472	94.4	456	.6	39 369	1.4	412	.8	19 910	1.9
Auglaize	1 000	.6	18 056	6.3	931	.5	195 112	.8	854	.5	182 151	.8
Belmont	625	.7	1 358	32.6	587	.5	65 322	1.0	547	.6	40 988	1.2
Brown	1 378	.6	8 129	13.7	1 314	.6	144 283	1.0	1 207	.6	106 546	1.2
Butler	849	.7	6 301	13.5	778	.6	107 613	1.2	686	.8	90 330	1.2
Carroll	685	.7	4 252	11.6	646	.5	67 988	1.0	579	.6	47 612	1.1
Champaign	837	.6	15 911	6.1	726	.6	196 118	.7	661	.7	183 300	.8
Clark	671	.6	19 467	6.2	616	.6	153 899	.8	561	.7	142 470	.8
Clermont	744	.7	1 997	39.0	688	.7	65 699	1.6	617	.8	52 645	1.9
Clinton	760	.8	16 665	6.2	718	.6	201 176	.9	658	.7	186 548	.9
Columbiana	979	.6	9 134	14.2	909	.6	98 720	.9	828	.6	79 886	1.0
Coshocton	865	.6	3 063	23.8	798	.5	104 165	.8	707	.6	70 174	1.0
Crawford	711	.6	16 885	7.0	662	.5	206 957	.6	614	.6	199 653	.6
Cuyahoga	118	1.7	4 301	3.2	102	1.3	2 707	5.0	85	1.9	1 286	5.4
Darke	1 728	.5	26 915	7.1	1 608	.4	302 082	.6	1 539	.4	291 079	.6
Defiance	861	.6	13 369	8.6	816	.5	165 673	.9	707	.7	151 319	1.0
Delaware	628	.6	9 318	9.8	578	.6	144 511	.9	526	.7	135 010	.9
Erie	380	.8	9 039	6.8	337	.6	80 856	1.0	312	.7	77 229	1.1
Fairfield	1 025	.7	14 571	8.9	937	.6	161 831	1.0	820	.7	138 789	1.1
Fayette	519	.6	23 112	4.4	478	.5	223 869	.6	435	.6	210 603	.6

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Net cash return from agricultural sales for the farm unit (see text)[1]				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)
Franklin	406	.8	12 973	6.6	370	.7	68 796	1.2	337	.9	61 612	1.3
Fulton	795	.8	16 179	5.1	739	.7	184 853	.8	696	.8	178 842	.8
Gallia	776	.7	2 312	23.3	723	.7	53 220	1.3	661	.7	25 617	1.4
Geauga	663	.8	3 068	22.9	582	.7	38 206	1.7	531	.8	27 453	1.9
Greene	764	.7	14 043	8.5	716	.5	155 339	.8	636	.6	142 808	.8
Guernsey	803	.8	425	(H)	755	.6	70 185	1.1	695	.7	38 066	1.4
Hamilton	302	.8	3 438	12.9	260	.8	20 645	1.8	228	1.1	15 104	2.1
Hancock	979	.6	27 834	4.0	934	.5	258 811	.8	917	.6	252 910	.8
Hardin	837	.8	37 547	3.4	786	.7	224 509	.9	707	.8	206 759	1.0
Harrison	423	.8	905	27.7	394	.7	52 782	1.3	364	.8	31 943	1.4
Henry	872	.5	24 589	5.6	840	.4	229 793	.6	829	.4	226 761	.6
Highland	1 239	.6	10 639	15.8	1 170	.5	190 143	.9	972	.7	141 524	1.0
Hocking	353	.9	–366	(H)	323	.7	23 032	1.7	280	.9	13 265	2.5
Holmes	1 403	.6	15 057	9.8	1 281	.5	112 711	.8	1 173	.6	84 861	.9
Huron	782	.7	22 188	4.4	732	.6	202 788	.7	665	.7	188 859	.8
Jackson	408	.7	2 547	12.3	375	.6	42 972	1.4	339	.7	22 411	1.9
Jefferson	412	.8	612	96.5	389	.7	39 782	1.5	355	.8	24 532	1.7
Knox	1 103	.6	12 199	7.3	1 016	.6	158 522	1.0	916	.7	130 632	1.1
Lake	276	.8	17 693	1.7	264	.5	13 081	1.6	240	.8	10 113	1.8
Lawrence	490	1.0	–199	(H)	447	.9	23 065	1.6	394	1.0	9 762	2.1
Licking	1 218	.5	17 579	6.2	1 114	.4	183 912	.7	1 000	.5	154 313	.8
Logan	894	.6	16 311	9.3	820	.6	188 214	.8	692	.7	163 489	.8
Lorain	777	.6	14 682	6.1	719	.5	109 918	.9	671	.6	97 720	.9
Lucas	385	.7	12 520	4.2	361	.6	75 312	1.1	332	.7	72 880	1.1
Madison	667	.7	27 627	6.0	617	.6	238 360	.6	574	.7	226 996	.7
Mahoning	541	.7	5 210	14.5	508	.5	56 414	1.1	458	.6	46 712	1.2
Marion	543	.8	16 697	5.9	492	.6	207 030	.7	460	.7	199 980	.7
Medina	851	.7	6 443	18.0	787	.6	81 152	1.0	708	.7	69 598	1.1
Meigs	491	.7	3 576	24.7	476	.4	38 605	1.4	437	.6	21 077	1.8
Mercer	1 254	.5	51 114	3.7	1 117	.4	236 888	.6	1 088	.5	228 175	.6
Miami	985	.6	20 852	6.6	908	.5	174 265	.9	855	.6	166 773	.9
Monroe	590	.7	1 027	59.7	549	.4	47 555	1.1	509	.5	23 563	1.3
Montgomery	760	.6	7 915	9.0	701	.5	93 117	1.2	656	.6	85 468	1.2
Morgan	501	.8	772	44.2	461	.6	42 285	1.2	432	.7	22 337	1.1
Morrow	758	.7	9 893	5.7	681	.6	132 124	.9	576	.7	119 652	.9
Muskingum	1 018	.5	1 669	38.2	950	.4	102 596	.8	869	.5	64 629	.9
Noble	521	.7	–904	45.2	488	.5	51 185	1.1	455	.6	21 922	1.0
Ottawa	474	.8	6 112	11.0	451	.5	97 255	.9	427	.6	91 848	.9
Paulding	542	.7	19 465	4.2	523	.5	195 568	.7	497	.6	186 926	.8
Perry	606	.8	2 271	25.7	572	.7	62 971	1.2	512	.8	45 623	1.4
Pickaway	702	.6	24 760	4.1	647	.5	240 818	.6	574	.6	223 117	.6
Pike	434	.9	352	(H)	405	.7	43 544	1.4	333	1.0	24 215	1.8
Portage	717	.8	1 855	32.5	657	.6	62 010	1.3	602	.6	49 417	1.4
Preble	977	.6	19 865	10.3	887	.5	172 108	.7	816	.5	162 658	.8
Putnam	1 352	.5	25 625	5.7	1 294	.4	275 137	.6	1 279	.4	265 704	.6
Richland	907	.7	11 382	11.8	858	.6	120 471	1.1	735	.8	102 027	1.2
Ross	885	.8	12 707	8.7	823	.6	183 980	.8	680	.8	145 749	.9
Sandusky	796	.6	14 296	10.8	741	.5	185 638	.7	710	.5	177 505	.7
Scioto	630	.7	2 786	29.3	578	.7	58 539	1.1	504	.8	38 722	1.4
Seneca	1 209	.6	23 518	6.8	1 136	.6	261 278	.8	1 080	.6	247 550	.8
Shelby	991	.6	16 320	8.9	921	.5	181 199	.7	847	.5	172 053	.8
Stark	1 085	.6	8 361	9.8	999	.5	106 899	.8	908	.6	90 826	.9
Summit	250	1.1	991	38.2	227	.8	11 308	2.4	200	1.1	7 344	3.1
Trumbull	785	.7	2 374	41.1	745	.5	82 052	1.1	695	.5	64 424	1.3
Tuscarawas	921	.8	12 743	6.0	846	.7	90 194	1.2	780	.7	63 674	1.3
Union	810	.6	20 314	8.7	753	.5	185 126	.7	655	.6	170 628	.8
Van Wert	707	.5	26 159	6.2	668	.3	224 940	.6	652	.4	221 436	.6
Vinton	202	1.2	–234	53.8	192	.7	19 618	2.0	168	1.0	10 632	1.8
Warren	740	.6	4 728	17.4	657	.6	94 343	.8	563	.7	82 454	.9
Washington	902	.6	2 716	27.0	829	.5	72 096	.9	770	.6	42 236	1.0
Wayne	1 600	.6	33 647	6.0	1 411	.5	195 298	.7	1 305	.6	172 504	.8
Williams	909	.7	10 629	6.9	845	.7	175 237	.9	636	.9	146 595	1.0
Wood	1 015	.7	28 279	4.9	971	.6	288 322	.7	942	.6	281 220	.7
Wyandot	608	.7	16 624	5.7	565	.5	190 879	.8	520	.6	180 922	.8

Geographic area	Irrigated land				Livestock and poultry							
					Cattle and calves inventory				Beef cows inventory			
	Farms		Acres		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)
Ohio	**1 778**	**.8**	**33 997**	**.5**	**28 244**	**.4**	**1 282 546**	**.4**	**17 060**	**.5**	**293 570**	**.5**
Adams	12	9.4	91	19.5	719	.9	25 966	1.3	602	1.0	11 871	1.4
Allen	7	9.1	(D)	(D)	158	2.0	7 196	3.9	62	3.4	709	5.8
Ashland	15	7.6	56	6.0	492	1.0	29 424	1.1	200	2.0	2 934	3.3
Ashtabula	36	4.8	371	7.6	460	1.1	20 632	1.2	216	1.8	1 776	2.5

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—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			
					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)
Athens	17	7.6	45	9.4	307	1.1	10 161	1.8	239	1.4	4 379	2.1
Auglaize	3	14.8	(D)	(D)	299	1.4	19 570	1.3	60	3.6	698	5.3
Belmont	7	11.5	13	7.2	483	.8	23 569	1.2	386	1.0	11 032	1.5
Brown	19	6.6	75	13.1	608	1.1	17 620	1.6	502	1.2	7 950	1.7
Butler	28	6.3	159	14.3	442	1.2	20 935	1.5	328	1.5	7 800	1.6
Carroll	11	8.3	43	4.4	435	.9	17 809	1.5	300	1.3	4 955	2.3
Champaign	12	8.0	(D)	(D)	302	1.4	15 550	1.9	167	2.1	2 510	3.4
Clark	25	5.4	2 305	1.0	218	1.7	9 953	1.8	139	2.3	2 731	4.2
Clermont	25	6.7	67	17.1	280	1.6	6 419	2.6	229	1.8	2 981	2.8
Clinton	7	10.4	54	1.3	188	2.1	6 122	2.8	143	2.5	2 457	3.5
Columbiana	41	4.5	581	1.2	566	.9	27 265	1.1	299	1.5	4 164	1.8
Coshocton	6	9.0	(D)	(D)	525	.8	24 329	1.1	345	1.2	7 423	1.5
Crawford	5	10.2	15	10.8	190	1.8	9 420	2.0	59	3.7	828	4.1
Cuyahoga	43	3.4	160	4.6	7	12.0	160	20.2	7	12.0	93	22.9
Darke	18	6.7	452	19.7	473	1.1	27 774	1.2	168	2.0	1 796	3.0
Defiance	6	13.7	6	13.7	132	2.5	10 022	1.6	43	4.6	370	7.2
Delaware	32	5.0	343	3.9	138	2.3	5 879	3.0	64	3.5	755	3.1
Erie	15	5.5	262	2.0	98	2.3	4 239	3.0	40	4.1	540	6.3
Fairfield	13	9.5	34	7.9	444	1.2	17 018	2.1	296	1.6	5 161	2.7
Fayette	5	14.9	13	14.4	151	1.9	6 561	2.8	108	2.4	2 427	2.8
Franklin	43	4.1	270	6.0	69	3.2	2 516	3.5	34	4.9	535	3.8
Fulton	21	5.5	356	4.6	183	2.1	18 932	1.7	46	4.5	522	6.0
Gallia	9	11.4	18	14.1	516	1.0	22 432	1.9	440	1.1	9 688	1.5
Geauga	58	3.9	192	5.9	280	1.5	8 187	2.3	87	3.2	757	6.0
Greene	23	5.1	582	1.8	276	1.5	9 287	2.1	210	1.8	3 495	2.6
Guernsey	9	8.8	28	14.4	604	.8	22 189	1.2	512	.9	9 785	1.4
Hamilton	66	2.8	739	4.9	94	2.6	2 277	3.3	71	3.2	844	4.3
Hancock	8	9.9	50	6.5	144	2.3	4 125	2.0	31	5.4	278	5.7
Hardin	5	12.6	(D)	(D)	192	2.2	9 244	2.1	73	3.9	1 259	4.2
Harrison	–	–	–	–	314	1.0	15 530	1.3	255	1.3	6 187	1.8
Henry	12	7.9	862	5.4	118	2.4	5 918	2.7	39	4.3	454	5.8
Highland	21	7.2	142	3.2	547	1.1	25 135	1.3	422	1.3	8 254	1.9
Hocking	5	15.1	20	25.0	191	1.5	4 156	2.2	168	1.6	2 369	2.6
Holmes	24	6.0	60	7.1	1 059	.6	47 789	.8	293	1.6	4 176	2.6
Huron	26	5.0	3 351	.5	226	1.8	9 218	2.4	89	3.0	1 043	3.6
Jackson	7	7.6	16	12.4	272	1.0	12 656	1.7	228	1.2	5 946	2.0
Jefferson	5	16.4	(D)	(D)	298	1.1	10 939	1.8	250	1.3	4 511	2.0
Knox	11	7.9	63	16.3	563	1.1	26 423	2.1	349	1.5	6 024	2.4
Lake	96	2.1	3 544	.9	37	4.2	722	6.5	19	6.3	113	9.1
Lawrence	8	9.5	27	13.5	328	1.3	7 468	2.2	270	1.5	3 807	2.5
Licking	20	5.8	45	5.2	605	.9	25 122	1.3	447	1.1	7 458	1.6
Logan	6	11.6	(D)	(D)	301	1.5	15 455	1.5	150	2.3	3 980	1.9
Lorain	88	2.7	1 407	1.7	191	1.8	11 130	1.2	69	3.3	895	2.3
Lucas	61	2.8	1 407	.6	30	4.8	1 548	3.3	12	9.0	115	13.2
Madison	13	8.9	101	3.1	204	1.8	13 229	2.3	115	2.7	2 695	4.1
Mahoning	45	3.8	746	2.3	240	1.4	13 302	1.5	117	2.2	2 139	2.3
Marion	4	18.8	22	24.6	134	2.2	9 007	1.1	70	3.5	1 042	2.9
Medina	42	4.3	372	7.2	329	1.4	12 372	1.7	177	2.1	1 447	3.3
Meigs	38	4.2	503	4.2	316	1.0	10 879	1.8	266	1.2	4 356	2.0
Mercer	4	11.6	(D)	(D)	399	1.1	43 581	.9	34	4.0	932	6.7
Miami	22	5.8	666	5.8	279	1.6	9 997	1.9	172	2.1	1 908	2.7
Monroe	4	12.6	5	13.3	494	.6	16 543	1.0	425	.7	7 439	1.4
Montgomery	40	4.5	325	4.5	211	1.9	5 045	2.5	133	2.5	1 341	3.2
Morgan	4	11.8	4	11.8	391	.8	15 993	1.2	349	.9	6 597	1.3
Morrow	7	11.9	8	12.2	275	1.5	11 060	1.8	165	2.0	1 988	2.6
Muskingum	24	5.1	91	4.2	705	.7	29 625	1.1	596	.8	12 929	1.1
Noble	1	23.1	(D)	(D)	414	.7	13 868	1.0	381	.8	7 412	1.1
Ottawa	15	5.5	802	1.2	44	4.0	1 022	2.4	19	6.5	143	8.8
Paulding	–	–	–	–	74	3.2	2 432	3.0	33	5.1	257	7.8
Perry	13	8.8	51	18.5	389	1.1	12 297	1.8	319	1.3	5 023	2.0
Pickaway	13	8.1	642	1.0	219	1.6	10 844	2.3	140	2.2	3 883	2.6
Pike	10	10.4	30	12.9	244	1.4	8 617	2.2	196	1.7	3 655	2.9
Portage	43	3.8	533	8.4	292	1.4	9 636	1.6	175	1.9	1 732	2.8
Preble	11	5.9	489	.5	388	1.1	17 368	1.3	203	1.8	2 320	2.7
Putnam	13	7.5	29	7.9	246	1.6	10 759	2.1	50	4.2	695	6.5
Richland	23	5.7	93	11.6	441	1.2	22 928	1.9	178	2.2	2 987	2.7
Ross	7	9.7	(D)	(D)	425	1.2	19 441	1.6	374	1.4	7 865	1.6
Sandusky	17	5.1	234	1.2	178	1.9	6 913	2.4	70	3.4	1 380	3.6
Scioto	7	12.2	26	24.6	374	1.1	11 469	1.9	319	1.3	5 023	2.8
Seneca	13	5.5	(D)	(D)	327	1.5	11 107	2.4	109	2.9	1 315	4.2
Shelby	6	11.0	13	10.2	314	1.3	22 107	2.0	66	3.4	788	4.7
Stark	60	3.7	889	3.2	550	.9	26 179	1.0	295	1.4	3 348	2.6
Summit	35	4.8	329	4.8	54	3.7	1 447	4.7	40	4.1	604	4.6
Trumbull	30	5.4	248	14.8	379	1.1	12 978	1.5	191	1.7	2 114	2.7
Tuscarawas	15	7.8	97	7.7	588	1.0	30 138	1.2	345	1.5	5 157	2.4
Union	18	6.9	65	11.6	207	1.8	11 942	1.5	99	2.7	1 126	2.8
Van Wert	2	17.8	(D)	(D)	90	2.3	3 347	2.7	24	4.6	230	6.8
Vinton	2	14.9	(D)	(D)	123	1.6	4 157	2.4	107	1.8	2 198	2.6
Warren	33	4.8	232	6.9	236	1.6	8 154	2.7	175	1.9	3 163	4.3
Washington	28	5.3	423	2.8	643	.7	24 783	1.2	524	.9	8 464	1.4

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—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			
					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)
Wayne	44	4.7	677	3.7	1 017	.7	82 477	.7	272	1.7	4 835	2.0
Williams	2	19.3	(D)	(D)	175	2.2	12 828	2.5	63	4.0	974	4.6
Wood	25	5.9	232	10.1	153	2.4	4 791	2.7	60	3.9	571	4.4
Wyandot	5	14.9	23	15.0	130	2.3	5 893	3.2	48	4.2	660	5.4

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)
Ohio	**5 425**	**.6**	**262 834**	**.4**	**5 952**	**.5**	**1 700 491**	**.3**	**3 549**	**.7**	**134 906**	**.9**
Adams	72	3.5	3 096	3.2	72	3.3	10 985	4.5	36	4.9	907	6.1
Allen	14	6.0	909	2.0	93	2.6	41 156	1.8	31	5.2	785	5.6
Ashland	178	1.9	9 514	1.3	115	2.7	20 894	2.9	83	3.3	4 050	4.0
Ashtabula	169	2.1	8 209	1.6	69	3.4	2 225	9.2	23	6.1	1 184	11.6
Athens	41	4.1	1 135	4.1	24	6.2	213	10.2	28	5.2	1 429	6.3
Auglaize	110	2.3	6 775	1.8	86	2.7	40 325	1.9	45	4.3	1 401	6.1
Belmont	77	2.9	2 779	3.4	26	5.6	727	13.9	43	4.4	1 804	8.7
Brown	41	4.8	1 761	4.7	41	4.9	2 369	11.4	27	6.2	610	8.2
Butler	47	4.1	2 490	3.4	66	3.7	14 231	2.7	42	4.7	797	6.3
Carroll	104	2.6	4 281	2.7	35	4.7	969	10.3	35	4.7	1 490	8.1
Champaign	63	3.4	3 197	2.8	79	3.1	27 042	1.6	44	4.3	1 400	5.8
Clark	15	6.7	816	4.1	49	4.0	13 531	2.1	48	4.3	1 114	5.4
Clermont	14	9.3	325	10.4	33	5.4	1 032	12.3	13	8.7	266	16.8
Clinton	12	9.3	508	9.7	78	2.9	30 152	1.7	19	8.3	695	20.2
Columbiana	167	1.9	10 519	1.4	81	3.3	6 699	4.4	43	4.6	2 450	7.7
Coshocton	110	2.3	4 355	2.4	110	2.4	30 027	1.4	87	2.8	4 169	4.6
Crawford	24	4.5	1 793	2.7	95	2.6	54 985	.9	58	3.8	2 307	5.5
Cuyahoga	–	–	–	–	4	13.8	55	15.0	4	16.0	89	17.5
Darke	106	2.3	8 304	1.6	217	1.6	140 105	.8	83	3.1	1 976	4.8
Defiance	31	5.1	1 474	4.0	56	3.9	13 755	3.8	32	5.3	737	9.5
Delaware	31	5.4	1 204	6.1	33	4.8	15 055	1.7	48	4.4	1 608	15.2
Erie	25	5.1	1 306	4.7	28	4.6	5 878	4.7	21	5.9	577	11.8
Fairfield	56	4.3	1 847	5.0	87	3.3	17 566	2.3	62	3.8	1 514	4.9
Fayette	7	9.4	210	7.4	69	2.5	26 899	1.7	34	4.3	2 715	4.7
Franklin	12	7.1	387	6.7	26	5.9	3 634	3.8	20	6.3	1 203	2.7
Fulton	32	5.8	1 657	4.3	113	2.6	65 230	1.6	25	6.8	480	11.6
Gallia	32	4.9	1 661	3.8	44	4.5	2 369	12.1	18	7.1	324	5.1
Geauga	140	2.3	3 288	3.1	67	3.7	1 528	7.4	35	5.4	714	8.0
Greene	19	7.4	602	8.4	80	3.1	27 407	2.0	51	4.2	2 354	4.6
Guernsey	52	4.0	1 419	4.7	46	4.3	3 880	6.5	57	3.6	2 861	6.0
Hamilton	4	13.4	305	7.1	8	9.9	(D)	(D)	12	9.7	185	11.4
Hancock	16	5.2	1 167	2.1	89	2.7	37 887	1.7	45	4.8	1 280	6.3
Hardin	49	4.9	1 014	6.0	115	2.8	50 934	1.0	55	4.4	2 793	4.5
Harrison	27	5.4	1 549	3.4	20	6.4	291	13.7	54	3.6	5 903	2.9
Henry	25	4.9	1 222	4.6	52	3.5	13 267	3.0	19	6.7	257	8.8
Highland	41	4.7	1 462	4.6	73	3.4	10 072	5.1	36	5.0	1 554	8.3
Hocking	8	10.0	35	12.8	32	4.8	701	11.3	24	5.9	798	8.6
Holmes	636	.9	16 428	.9	351	1.4	41 244	1.9	121	2.5	2 706	6.8
Huron	52	4.3	2 792	3.6	67	3.4	24 172	2.3	46	4.9	1 415	8.6
Jackson	14	6.7	471	6.2	16	7.0	635	7.6	13	7.6	286	10.8
Jefferson	24	6.0	1 009	6.3	22	6.3	1 611	16.4	19	6.5	547	10.0
Knox	126	2.7	5 927	2.6	100	3.2	24 599	3.3	111	2.9	6 172	4.7
Lake	7	11.0	119	14.8	12	8.2	319	2.7	9	11.1	162	18.9
Lawrence	13	7.7	274	7.3	20	7.1	719	14.0	12	10.2	289	13.4
Licking	76	2.9	4 725	1.8	90	2.9	17 222	2.2	92	2.9	3 871	4.4
Logan	69	3.3	3 784	2.3	60	3.7	18 450	2.8	63	3.9	2 785	7.0
Lorain	58	3.0	3 972	1.4	51	3.6	11 941	2.0	41	4.6	904	7.6
Lucas	3	12.9	142	12.4	27	5.2	16 874	1.7	14	7.7	217	9.0
Madison	37	5.0	2 178	3.5	43	4.2	10 986	4.6	48	4.2	1 865	5.2
Mahoning	73	2.8	4 547	2.2	42	3.8	3 493	4.9	30	4.6	1 207	5.3
Marion	10	7.6	593	1.3	59	3.5	28 578	1.8	54	4.1	2 562	3.6
Medina	90	3.1	4 474	2.2	61	4.0	1 948	5.4	50	4.4	950	5.6
Meigs	28	5.2	1 140	5.4	18	6.6	76	9.8	15	6.6	328	7.2
Mercer	197	1.5	16 154	1.0	229	1.4	160 494	.7	23	6.1	781	12.2
Miami	28	5.2	1 682	4.3	92	2.8	23 417	1.9	54	4.2	1 915	5.0
Monroe	60	2.8	2 048	3.2	26	4.8	658	11.0	22	5.1	832	8.7
Montgomery	17	7.0	644	6.6	59	3.8	13 808	3.9	40	4.7	795	6.0
Morgan	32	4.3	963	4.7	23	5.5	(D)	(D)	34	4.7	1 388	8.6
Morrow	54	3.9	1 978	3.5	67	3.5	17 479	1.9	69	3.7	3 168	5.3
Muskingum	56	3.4	2 046	3.4	77	2.8	13 746	2.9	65	3.3	4 280	5.8
Noble	21	5.7	294	6.9	23	5.5	151	9.3	43	3.9	1 422	9.3
Ottawa	3	8.8	285	2.3	20	6.3	4 948	7.4	9	10.1	225	10.1
Paulding	12	7.9	389	5.9	18	6.2	9 982	.6	5	14.1	72	6.0
Perry	29	5.4	1 051	4.7	53	4.1	3 479	7.3	46	4.4	2 117	5.6

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

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)
Pickaway	16	6.3	837	4.3	72	3.1	31 416	1.5	36	4.9	1 189	6.3
Pike	21	6.4	910	4.9	15	7.6	522	18.3	13	8.3	160	11.4
Portage	51	3.7	2 895	2.6	44	4.2	2 698	8.2	32	5.4	1 112	7.1
Preble	42	3.9	2 067	3.5	138	2.0	63 486	1.2	57	3.8	1 164	5.6
Putnam	44	3.6	2 450	3.4	157	2.0	78 517	1.5	37	4.1	1 237	5.0
Richland	161	2.4	6 831	2.6	95	3.3	14 451	4.8	59	4.1	1 734	6.2
Ross	19	7.1	771	4.9	65	3.8	9 052	5.6	42	5.1	2 251	7.1
Sandusky	28	4.4	1 621	3.9	73	3.1	15 041	3.0	37	4.7	687	7.0
Scioto	16	7.4	506	9.2	28	5.8	486	8.9	9	9.4	99	15.0
Seneca	32	5.2	1 365	5.2	131	2.4	39 624	2.1	76	3.5	3 524	7.3
Shelby	110	2.2	7 198	1.8	117	2.4	39 805	2.0	48	4.0	1 684	6.0
Stark	141	2.0	9 174	1.3	90	2.8	9 354	2.1	51	3.8	1 371	5.8
Summit	5	12.2	208	12.8	7	12.6	276	22.3	15	7.3	525	9.5
Trumbull	103	2.5	3 892	2.4	50	3.9	1 185	8.7	24	5.6	320	10.6
Tuscarawas	144	2.1	9 469	1.4	88	3.3	10 450	5.1	49	4.5	1 734	10.3
Union	31	4.4	2 596	2.7	63	3.1	38 809	.8	58	3.8	3 298	3.5
Van Wert	17	5.5	662	4.4	47	3.0	17 474	2.1	23	4.4	848	4.0
Vinton	6	9.9	104	13.1	15	6.5	710	14.6	16	6.3	320	8.4
Warren	8	7.4	466	7.0	44	3.8	7 266	3.5	40	4.4	652	6.3
Washington	51	3.8	3 061	2.8	63	3.2	8 289	4.3	35	4.4	2 362	8.2
Wayne	527	1.1	30 349	.8	221	2.0	50 217	2.0	116	2.6	4 480	5.9
Williams	22	7.2	769	6.1	70	3.8	19 254	3.2	25	6.6	1 689	7.0
Wood	17	7.6	631	7.1	64	3.5	10 658	2.9	31	5.1	1 342	7.1
Wyandot	17	5.8	1 318	3.4	58	3.1	38 470	.8	32	5.0	1 083	4.2

Geographic area	Livestock and poultry—Con.							
	Layers 20 weeks old and older 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)
Ohio	**3 065**	**.7**	**26 135 888**	**.2**	**496**	**1.3**	**41 135 469**	**.8**
Adams	42	4.5	4 738	25.8	–	–	–	–
Allen	11	7.8	(D)	(D)	1	28.8	(D)	(D)
Ashland	66	3.8	4 408	7.7	7	11.6	466	15.1
Ashtabula	68	3.5	11 585	24.0	5	13.2	(D)	(D)
Athens	42	4.5	1 046	5.9	2	13.9	(D)	(D)
Auglaize	13	5.8	598 218	(L)	–	–	–	–
Belmont	25	5.8	434	7.0	1	29.7	(D)	(D)
Brown	42	4.8	1 275	6.8	2	22.9	(D)	(D)
Butler	34	5.3	985	8.3	5	15.5	(D)	(D)
Carroll	40	4.4	(D)	(D)	5	13.3	798	22.3
Champaign	23	5.6	756	7.1	4	15.8	(D)	(D)
Clark	28	6.0	775	9.0	6	11.2	630	7.3
Clermont	41	5.0	915	6.3	–	–	–	–
Clinton	15	8.1	738	17.1	–	–	–	–
Columbiana	52	4.0	2 380	15.2	10	9.2	(D)	(D)
Coshocton	51	3.6	130 385	.1	15	5.2	772 134	5.6
Crawford	23	6.2	1 054	11.1	3	16.6	380	22.3
Cuyahoga	7	10.4	495	11.9	–	–	–	–
Darke	73	2.6	5 606 525	.7	8	9.3	(D)	(D)
Defiance	25	6.1	662	15.9	–	–	–	–
Delaware	25	6.3	612	8.8	4	19.2	313	30.9
Erie	13	8.0	336	9.9	1	26.5	(D)	(D)
Fairfield	56	4.1	(D)	(D)	11	9.6	670	11.2
Fayette	9	8.6	263	15.5	2	19.7	(D)	(D)
Franklin	13	8.2	1 202	5.9	1	31.7	(D)	(D)
Fulton	13	9.0	376	10.6	6	16.4	1 532	28.4
Gallia	20	7.6	548	7.8	1	31.5	(D)	(D)
Geauga	66	3.8	5 040	28.3	4	13.4	(D)	(D)
Greene	31	5.2	637	6.3	5	14.1	915	24.0
Guernsey	30	5.7	662	7.6	2	24.0	(D)	(D)
Hamilton	12	8.3	297	10.1	1	41.2	(D)	(D)
Hancock	13	8.2	(D)	(D)	1	33.8	(D)	(D)
Hardin	29	6.2	(D)	(D)	1	35.4	(D)	(D)
Harrison	16	7.8	542	9.4	1	33.0	(D)	(D)
Henry	8	8.9	(D)	(D)	–	–	–	–
Highland	29	6.0	553	8.5	–	–	–	–
Hocking	21	5.4	691	5.9	1	30.2	(D)	(D)
Holmes	218	1.8	154 527	1.5	122	2.1	12 965 680	1.7
Huron	26	6.4	820	9.8	3	18.6	(D)	(D)
Jackson	16	7.0	744	12.3	–	–	–	–
Jefferson	18	7.6	373	11.1	–	–	–	–
Knox	66	3.8	10 088	28.2	15	8.7	(D)	(D)
Lake	12	8.2	430	8.4	2	25.7	(D)	(D)
Lawrence	19	7.7	324	9.0	–	–	–	–

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Livestock and poultry—Con.							
	Layers 20 weeks old and older 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)
Licking	60	3.4	(D)	(D)	6	10.8	957	13.9
Logan	33	4.9	(D)	(D)	9	10.3	512	15.5
Lorain	36	5.0	601	6.6	1	28.0	(D)	(D)
Lucas	14	8.2	(D)	(D)	2	13.8	(D)	(D)
Madison	21	6.8	590	11.9	2	23.5	(D)	(D)
Mahoning	40	4.2	(D)	(D)	9	8.4	1 905	17.6
Marion	12	9.1	296	11.0	2	24.7	(D)	(D)
Medina	62	4.0	2 397	6.4	10	8.9	748	11.5
Meigs	24	5.0	27 520	12.4	–	–	–	–
Mercer	67	1.6	7 245 916	.6	4	10.8	450 000	4.8
Miami	29	5.5	3 997	5.5	9	10.0	1 366	17.7
Monroe	40	3.9	1 125	6.4	–	–	–	–
Montgomery	39	4.6	(D)	(D)	6	10.8	137	11.7
Morgan	28	4.8	1 336	5.0	3	13.9	(D)	(D)
Morrow	47	4.5	11 515	27.8	1	32.2	(D)	(D)
Muskingum	52	3.6	1 716	5.6	3	16.0	(D)	(D)
Noble	28	4.8	720	6.7	1	23.1	(D)	(D)
Ottawa	17	7.3	470	10.8	4	17.0	1 016	18.9
Paulding	9	8.5	(D)	(D)	2	15.4	(D)	(D)
Perry	42	4.8	1 221	7.3	3	16.0	(D)	(D)
Pickaway	14	7.4	511	11.3	–	–	–	–
Pike	17	8.1	418	8.2	1	29.8	(D)	(D)
Portage	46	4.3	1 218	6.5	3	16.4	173	18.2
Preble	41	4.2	5 747	24.1	3	21.1	465	23.4
Putnam	6	8.4	209 130	(L)	3	18.3	(D)	(D)
Richland	70	4.0	3 118	6.4	10	8.2	936 586	(L)
Ross	32	5.6	1 545	8.5	1	33.9	(D)	(D)
Sandusky	24	5.6	869	8.5	4	13.4	(D)	(D)
Scioto	31	5.1	(D)	(D)	1	34.0	(D)	(D)
Seneca	37	5.3	(D)	(D)	6	12.0	475	17.3
Shelby	21	6.3	(D)	(D)	3	15.8	(D)	(D)
Stark	62	3.5	(D)	(D)	13	5.2	7 163 141	(L)
Summit	19	6.9	637	15.1	–	–	–	–
Trumbull	53	3.6	2 001	9.1	4	11.4	560	11.0
Tuscarawas	50	4.6	1 947	8.9	46	4.1	6 619 035	2.8
Union	26	6.1	424	7.5	3	17.8	52	19.9
Van Wert	12	5.5	(D)	(D)	1	25.6	(D)	(D)
Vinton	17	6.1	1 074	12.8	2	20.1	(D)	(D)
Warren	27	5.3	387	6.2	6	13.1	670	19.6
Washington	44	4.3	1 331	6.6	1	25.8	(D)	(D)
Wayne	149	2.5	210 508	1.2	40	4.1	10 962 756	1.2
Williams	21	7.2	(D)	(D)	5	13.0	694	14.1
Wood	25	5.7	758	4.9	3	19.8	90	22.5
Wyandot	21	5.7	(D)	(D)	2	21.8	(D)	(D)

Geographic area	Selected crops harvested											
	Corn for grain or seed						Corn for silage or green chop					
	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)	Tons, green	Relative standard error of estimate (percent)
Ohio	**31 517**	**.5**	**3 378 205**	**.3**	**429 619 833**	**.3**	**5 526**	**.6**	**177 045**	**.5**	**2 710 560**	**.5**
Adams	312	1.5	13 329	2.0	1 114 469	2.2	52	4.2	1 860	3.9	27 579	4.1
Allen	609	.7	62 863	1.0	8 112 105	1.1	19	4.8	894	4.8	18 801	6.2
Ashland	521	.9	37 856	1.2	4 137 729	1.3	166	2.1	5 639	1.5	80 000	1.5
Ashtabula	278	1.5	13 087	1.8	1 134 711	1.9	130	2.4	5 151	2.2	52 121	2.7
Athens	79	2.9	2 182	5.5	195 140	5.7	20	5.9	560	5.2	8 596	5.1
Auglaize	667	.7	60 944	.8	8 419 104	.9	121	2.1	4 153	1.7	73 186	1.6
Belmont	109	2.6	1 834	3.1	151 175	3.2	37	4.4	723	6.0	12 355	6.1
Brown	336	1.5	28 547	1.6	2 804 714	1.7	29	5.3	680	6.5	8 085	6.9
Butler	313	1.5	34 453	1.5	3 596 832	1.5	78	3.1	2 436	2.7	33 210	2.8
Carroll	230	1.5	9 499	2.1	802 604	2.0	77	3.1	2 569	3.3	32 759	2.6
Champaign	442	.9	84 452	.8	11 173 829	.8	56	3.6	2 035	4.9	30 677	4.1
Clark	351	1.1	63 493	.9	9 064 289	.9	42	4.2	1 081	4.6	20 946	5.1
Clermont	156	2.2	13 849	2.3	1 407 705	2.4	6	12.7	76	10.0	1 092	6.7
Clinton	415	1.2	76 629	1.0	10 304 527	1.0	29	5.9	408	7.4	6 920	7.6
Columbiana	406	1.1	23 011	1.3	2 221 804	1.3	162	1.9	6 293	1.5	82 691	1.5
Coshocton	392	1.0	31 831	1.3	3 834 353	1.3	124	2.1	2 728	2.9	42 442	2.7
Crawford	485	.8	71 833	.7	9 486 238	.7	43	3.5	1 473	2.7	25 436	1.8
Cuyahoga	2	24.4	(D)	(D)	(D)	(D)	1	46.4	(D)	(D)	(D)	(D)
Darke	1 146	.6	114 598	.7	14 241 946	.8	127	2.1	6 777	1.7	104 175	1.7
Defiance	397	1.1	37 115	1.4	4 603 845	1.4	32	4.7	1 367	3.0	21 344	2.5
Delaware	263	1.3	44 539	.9	5 753 417	.9	23	5.8	579	5.3	9 627	5.8
Erie	206	1.2	27 486	1.3	3 535 652	1.3	28	4.7	815	3.8	11 928	4.2
Fairfield	475	1.1	63 679	1.2	8 832 412	1.3	45	4.6	1 174	4.6	20 741	4.0
Fayette	348	.8	86 805	.6	12 145 781	.5	14	6.7	389	16.2	6 794	16.5

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Selected crops harvested											
	Corn for grain or seed						Corn for silage or green chop					
	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)	Tons, green	Relative standard error of estimate (percent)
Franklin	178	1.7	22 733	1.6	2 908 765	1.6	7	8.9	(D)	(D)	(D)	(D)
Fulton	538	1.0	76 774	.9	10 426 451	.9	60	3.5	2 518	2.4	44 271	2.4
Gallia	117	2.5	3 252	3.9	357 575	3.9	38	4.5	1 276	4.0	22 288	4.5
Geauga	190	1.9	4 956	3.6	371 784	2.9	131	2.4	2 261	3.1	21 990	3.0
Greene	388	1.1	62 130	1.0	8 712 736	1.1	23	5.3	524	6.8	7 363	5.4
Guernsey	153	2.1	5 517	5.3	570 896	5.7	44	4.0	679	4.8	8 804	4.6
Hamilton	40	3.8	4 491	2.4	388 547	2.8	6	8.3	317	9.0	3 550	8.6
Hancock	720	.8	85 450	.9	11 169 095	.9	18	5.2	664	2.7	10 748	3.2
Hardin	524	1.1	70 790	1.0	9 469 263	1.1	57	4.4	1 159	4.9	19 636	4.2
Harrison	88	2.8	3 099	2.5	291 934	3.0	19	6.6	1 204	3.5	17 144	2.6
Henry	682	.6	78 541	.7	11 010 952	.7	27	4.3	994	4.3	16 512	4.6
Highland	461	1.2	45 608	1.3	5 356 230	1.3	45	4.3	1 245	4.2	21 225	3.5
Hocking	80	2.7	3 208	7.0	377 211	8.8	6	11.5	120	15.2	1 359	17.9
Holmes	876	.7	24 738	1.2	2 664 428	1.2	578	1.0	8 607	1.2	119 889	1.2
Huron	449	1.1	60 807	.9	7 221 692	1.0	47	4.2	1 459	3.8	20 865	3.9
Jackson	90	2.4	4 639	4.1	497 813	4.0	20	5.4	472	4.2	7 720	3.6
Jefferson	106	2.5	3 189	4.3	302 518	4.5	28	5.4	707	5.7	10 253	4.6
Knox	550	1.0	53 553	1.4	6 233 980	1.4	105	3.0	2 550	3.8	39 982	4.3
Lake	17	6.7	(D)	(D)	(D)	(D)	8	8.8	146	9.2	734	10.1
Lawrence	57	3.4	1 056	6.5	104 610	7.1	19	6.4	298	5.5	4 729	5.4
Licking	471	1.0	60 903	.8	7 676 349	.8	70	2.9	2 180	2.5	35 437	2.2
Logan	407	1.2	60 324	1.0	7 352 573	.9	81	2.9	3 294	3.5	56 963	3.6
Lorain	191	1.7	17 579	1.2	1 836 844	1.2	51	3.3	2 721	1.7	40 203	1.4
Lucas	172	1.5	25 767	1.2	3 494 715	1.3	4	6.9	340	1.2	5 510	.1
Madison	395	1.0	91 071	.7	13 155 810	.7	36	4.5	1 664	3.4	31 381	2.5
Mahoning	227	1.4	14 884	1.5	1 410 938	1.6	85	2.6	4 110	2.4	56 197	2.4
Marion	308	1.2	63 537	.8	8 150 188	.8	16	4.3	628	2.2	10 862	1.3
Medina	281	1.5	15 370	1.5	1 452 447	1.4	77	3.3	3 642	2.9	41 093	3.0
Meigs	113	2.3	3 186	4.4	300 089	4.9	38	4.1	555	4.9	8 315	5.5
Mercer	885	.6	84 797	.6	12 022 660	.6	221	1.5	9 650	1.2	179 334	1.3
Miami	602	.9	72 125	1.0	9 946 248	1.0	45	3.9	1 315	4.3	22 631	4.1
Monroe	88	2.4	1 697	4.1	152 008	4.0	36	3.8	631	4.8	7 346	4.4
Montgomery	349	1.2	34 907	1.4	4 086 224	1.5	18	6.1	754	10.0	9 827	9.0
Morgan	141	1.9	2 997	2.3	307 944	2.4	35	4.0	706	3.0	11 921	3.3
Morrow	368	1.1	42 356	1.0	4 966 189	1.0	42	4.4	1 107	5.0	17 130	4.9
Muskingum	298	1.3	17 919	1.5	2 088 453	1.6	64	3.2	1 343	3.6	26 014	3.0
Noble	55	3.3	1 467	2.1	132 891	2.6	18	5.6	480	9.9	6 726	10.5
Ottawa	188	1.4	15 586	1.5	2 036 788	1.5	5	7.5	291	8.1	4 130	5.7
Paulding	303	1.2	53 237	.9	7 196 740	.9	5	13.2	218	5.6	4 582	7.2
Perry	252	1.5	19 230	1.9	2 317 171	1.9	33	5.2	626	5.1	9 379	6.0
Pickaway	401	.9	94 646	.6	12 863 857	.6	29	5.1	1 107	4.5	18 971	3.6
Pike	91	2.6	5 618	2.9	612 114	3.0	32	5.0	743	4.6	12 163	3.5
Portage	204	1.6	13 849	2.2	1 234 915	1.9	62	3.2	2 733	2.3	33 139	2.3
Preble	561	.8	74 758	.9	9 270 798	.9	50	3.7	1 533	4.1	24 134	3.5
Putnam	945	.6	75 079	.7	10 121 355	.8	54	3.2	1 517	3.8	26 457	3.6
Richland	442	1.2	36 411	1.3	3 872 701	1.4	148	2.5	4 816	3.5	68 801	4.5
Ross	346	1.3	54 958	1.0	7 341 449	.9	45	4.1	1 459	4.3	25 846	4.0
Sandusky	516	.8	57 548	.8	7 716 421	.8	30	4.2	839	4.4	12 898	4.3
Scioto	152	2.0	10 055	2.0	1 135 516	2.2	29	5.6	550	7.6	8 832	6.1
Seneca	834	.8	76 688	.9	9 804 596	1.0	51	4.1	1 238	5.8	19 130	6.8
Shelby	653	.7	61 902	.9	7 992 387	.9	122	2.1	4 772	2.1	85 678	1.9
Stark	488	1.0	31 859	1.1	3 338 774	1.1	138	2.1	5 905	1.7	71 119	1.6
Summit	42	4.0	1 593	6.1	155 142	4.9	8	9.7	163	7.8	1 944	5.5
Trumbull	292	1.3	17 716	2.0	1 647 014	2.1	98	2.5	2 819	2.4	30 649	2.1
Tuscarawas	368	1.3	18 740	2.2	1 806 472	2.2	147	2.1	6 238	1.9	94 795	1.7
Union	333	1.2	49 559	.9	6 091 184	.9	39	4.0	1 721	3.2	31 548	3.3
Van Wert	560	.5	78 184	.7	10 917 823	.7	21	4.4	460	3.2	8 107	4.1
Vinton	28	4.3	1 368	3.2	158 314	3.2	2	22.4	(D)	(D)	(D)	(D)
Warren	199	1.6	30 065	1.1	3 578 721	1.1	26	4.9	628	6.1	9 682	5.3
Washington	300	1.3	10 690	1.9	1 261 046	2.1	80	2.8	1 520	2.4	25 055	2.4
Wayne	917	.8	62 333	1.0	7 124 091	1.0	508	1.1	18 877	1.2	309 431	1.0
Williams	408	1.3	46 369	1.2	5 760 827	1.2	33	4.9	1 503	3.9	20 867	2.7
Wood	694	.8	87 189	.8	12 065 974	.8	30	5.7	740	6.3	9 229	6.7
Wyandot	407	.9	63 132	.9	8 123 106	.9	17	5.9	837	4.8	14 795	4.5

Geographic area	Selected crops harvested—Con.											
	Wheat 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)
Ohio	**18 747**	**.5**	**994 276**	**.4**	**55 105 157**	**.4**	**5 728**	**.6**	**81 168**	**.6**	**5 393 500**	**.6**
Adams	128	2.4	2 980	2.6	102 839	2.7	24	6.5	208	6.8	9 059	7.3
Allen	449	1.0	21 631	1.1	1 185 120	1.2	34	4.5	358	5.9	25 965	7.1
Ashland	298	1.4	8 341	1.7	371 136	1.7	243	1.7	3 329	1.8	214 621	2.0
Ashtabula	91	2.8	2 725	3.3	115 297	3.4	131	2.5	2 497	2.2	135 114	2.3

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Selected crops harvested—Con.											
	Wheat 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)
Athens	13	6.7	518	5.3	20 101	4.5	3	9.7	47	3.1	(D)	(D)
Auglaize	494	.9	23 576	1.2	1 407 852	1.2	56	3.6	1 118	4.0	85 302	3.7
Belmont	17	7.2	99	9.8	4 102	10.6	55	3.6	606	3.5	27 640	3.0
Brown	95	3.0	2 790	2.7	113 412	3.2	13	8.7	151	10.4	6 680	13.0
Butler	164	2.2	7 421	2.0	330 211	2.2	17	7.9	215	8.6	11 938	9.2
Carroll	72	3.2	1 746	2.8	82 620	3.0	133	2.3	2 136	2.5	133 890	2.6
Champaign	198	1.7	8 870	1.8	502 147	1.7	18	7.2	283	12.5	16 732	9.4
Clark	131	2.2	7 005	1.6	420 007	1.5	13	6.4	115	8.8	7 199	9.6
Clermont	41	4.3	1 629	2.4	62 959	2.8	3	25.8	57	26.1	(D)	(D)
Clinton	171	2.1	8 572	1.6	453 202	1.7	13	9.2	105	14.6	7 301	15.9
Columbiana	190	1.8	5 506	1.9	261 103	2.1	219	1.8	3 809	2.2	250 501	2.9
Coshocton	138	2.0	3 152	2.1	151 316	2.3	132	2.0	1 572	2.4	98 394	3.1
Crawford	407	1.0	29 626	.8	1 731 904	.8	41	4.0	664	5.4	39 575	3.7
Cuyahoga	4	12.8	(D)	(D)	(D)	(D)	–	–	–	–	–	–
Darke	685	.8	25 564	.9	1 501 172	.9	93	2.8	1 048	3.4	84 877	3.5
Defiance	444	1.1	23 163	1.3	1 182 865	1.3	28	5.6	667	5.6	50 543	6.1
Delaware	161	1.8	12 013	1.3	644 661	1.3	40	4.5	500	6.0	35 256	6.3
Erie	135	1.8	7 368	1.7	445 146	1.7	19	5.8	560	5.5	51 942	4.9
Fairfield	247	1.7	13 683	1.7	697 549	1.6	52	4.5	821	5.4	56 324	5.3
Fayette	178	1.5	13 803	1.3	815 702	1.1	18	6.1	416	3.3	24 976	3.9
Franklin	97	2.4	5 701	1.8	315 800	1.9	3	10.6	(D)	(D)	2 788	11.4
Fulton	341	1.4	15 972	1.5	1 043 865	1.5	28	5.7	351	3.5	27 639	3.8
Gallia	16	7.9	148	8.6	5 821	8.6	1	31.5	(D)	(D)	(D)	(D)
Geauga	48	4.1	641	3.0	26 951	2.8	172	2.0	1 843	2.3	104 571	2.5
Greene	167	1.9	7 373	1.5	416 273	1.5	22	5.6	406	5.2	27 386	5.4
Guernsey	20	6.0	399	4.2	14 613	4.5	54	3.4	608	3.6	29 119	4.1
Hamilton	17	6.0	712	5.4	32 935	5.7	–	–	–	–	–	–
Hancock	647	.9	43 408	1.0	2 515 484	1.0	51	4.2	494	3.5	32 447	3.8
Hardin	361	1.4	27 298	1.7	1 450 306	1.6	93	3.4	1 459	3.8	103 682	4.2
Harrison	13	7.3	440	2.8	22 135	2.7	48	3.7	591	4.6	32 160	4.7
Henry	580	.7	39 836	.9	2 482 309	.9	13	8.5	117	11.7	8 473	12.9
Highland	230	1.8	12 312	2.0	557 584	2.1	22	6.0	262	6.9	14 712	6.8
Hocking	22	6.3	470	8.3	16 127	8.5	10	10.3	72	11.0	2 138	12.3
Holmes	288	1.6	3 582	3.8	151 088	1.8	674	.9	7 519	1.0	564 863	1.1
Huron	355	1.3	23 839	1.2	1 308 672	1.1	52	4.3	810	6.1	51 044	6.2
Jackson	22	5.3	548	4.9	24 256	5.8	–	–	–	–	–	–
Jefferson	31	5.0	376	7.5	19 083	8.4	62	3.3	642	4.2	40 326	5.7
Knox	194	2.1	6 072	2.3	295 270	2.6	131	2.6	1 649	3.8	98 690	4.1
Lake	12	7.5	359	5.7	15 052	4.0	11	8.1	118	8.0	5 660	8.3
Lawrence	8	8.7	216	10.7	5 790	8.3	1	38.0	(D)	(D)	(D)	(D)
Licking	194	1.9	9 520	2.0	488 702	2.0	93	2.9	1 073	3.4	60 632	3.6
Logan	250	1.6	15 229	1.4	807 156	1.4	73	3.6	1 083	4.0	71 016	4.2
Lorain	92	2.5	4 766	1.9	228 008	1.8	35	4.3	780	4.0	41 384	4.4
Lucas	124	1.7	9 064	1.6	574 270	1.8	4	–	39	–	3 254	–
Madison	201	1.6	13 106	1.5	820 434	1.5	28	4.8	824	5.2	61 188	3.6
Mahoning	98	2.4	2 628	2.7	127 104	2.8	106	2.4	2 183	3.5	142 449	3.4
Marion	233	1.5	19 868	1.2	1 125 194	1.2	30	5.3	760	5.5	47 011	4.1
Medina	135	2.4	4 259	2.2	182 224	2.4	105	3.0	1 574	3.4	99 944	4.3
Meigs	9	7.8	218	6.6	10 380	9.2	11	6.7	150	7.9	7 042	10.9
Mercer	609	.8	24 863	.9	1 517 496	.9	129	2.3	2 131	2.2	165 368	2.2
Miami	299	1.4	11 721	1.3	649 303	1.3	38	5.2	251	6.2	18 546	6.8
Monroe	7	9.3	56	10.4	2 635	11.9	28	4.4	257	5.8	14 491	5.5
Montgomery	172	2.0	5 714	1.9	308 260	1.9	6	9.4	30	11.4	2 494	10.5
Morgan	36	4.2	451	3.9	16 528	3.8	30	4.5	294	5.6	12 883	6.0
Morrow	180	1.9	10 327	1.5	573 071	1.5	105	2.7	1 384	3.8	105 444	4.5
Muskingum	101	2.3	2 506	2.5	115 860	2.8	104	2.4	1 009	2.6	50 352	2.9
Noble	3	11.9	(D)	(D)	(D)	(D)	10	8.1	80	14.8	2 980	18.5
Ottawa	268	1.0	15 246	1.2	884 436	1.2	17	6.1	275	7.6	16 252	6.7
Paulding	332	1.1	37 230	.9	1 918 935	.9	26	5.4	606	6.0	42 130	6.1
Perry	77	3.2	2 490	3.5	105 426	3.5	56	3.9	626	4.9	35 113	5.1
Pickaway	284	1.3	27 134	1.3	1 461 645	1.1	11	7.0	237	4.5	12 578	4.5
Pike	27	4.8	887	4.3	39 602	3.8	13	8.9	114	11.0	4 262	10.5
Portage	86	2.7	2 751	2.4	128 896	2.5	99	2.7	1 443	2.9	86 357	2.7
Preble	263	1.4	10 625	1.6	582 073	1.6	19	6.6	172	6.2	11 067	5.9
Putnam	911	.6	50 024	.8	2 775 464	.8	28	4.4	398	4.2	25 150	5.0
Richland	256	1.7	9 625	1.8	458 082	1.8	153	2.4	2 302	3.6	142 653	3.8
Ross	250	1.6	19 614	1.3	1 041 633	1.4	28	5.8	344	7.9	23 756	7.5
Sandusky	428	.9	22 013	1.0	1 355 370	1.1	39	4.0	580	3.7	42 533	3.5
Scioto	28	5.0	1 589	3.0	78 338	2.9	8	10.2	74	13.4	1 937	11.3
Seneca	768	.8	43 138	1.0	2 462 205	1.0	117	2.7	1 814	3.2	147 961	2.9
Shelby	447	1.0	18 454	1.1	1 008 887	1.1	81	3.0	1 116	3.7	95 620	4.1
Stark	251	1.5	6 951	1.7	318 011	1.9	249	1.6	3 585	2.1	226 445	2.0
Summit	20	6.2	464	7.0	19 731	7.0	29	5.0	341	5.9	21 113	6.4
Trumbull	107	2.4	2 622	2.1	129 423	2.1	124	2.3	2 257	2.5	157 452	1.9
Tuscarawas	112	2.6	2 050	2.8	100 119	3.1	162	2.2	1 510	2.6	87 064	2.8
Union	287	1.2	18 527	1.3	1 038 647	1.2	36	4.6	489	5.7	27 279	4.7
Van Wert	356	.9	22 212	.9	1 287 700	.9	45	3.3	774	3.4	61 367	3.7
Vinton	5	10.0	118	7.6	2 955	8.2	1	25.1	(D)	(D)	(D)	(D)
Warren	90	2.4	5 199	1.7	280 695	1.6	11	8.5	544	3.4	31 263	2.3
Washington	104	2.6	1 850	3.0	74 400	3.4	28	4.4	280	4.8	12 624	4.7

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Selected crops harvested—Con.											
	Wheat 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)
Wayne	401	1.3	9 634	2.0	472 923	1.9	477	1.3	7 708	1.6	556 943	1.6
Williams	376	1.3	21 826	1.4	1 087 710	1.3	32	4.9	527	3.4	37 286	3.0
Wood	673	.9	55 779	.9	3 536 895	.9	33	5.3	551	3.9	32 721	5.6
Wyandot	377	1.0	30 297	1.0	1 583 268	.9	25	5.9	291	7.3	24 838	7.5

Geographic area	Selected crops harvested—Con.											
	Soybeans for beans						Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					
	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)	Tons, dry	Relative standard error of estimate (percent)
Ohio	**28 554**	**.5**	**4 115 575**	**.4**	**172 972 596**	**.3**	**31 475**	**.4**	**1 196 243**	**.4**	**2 813 975**	**.4**
Adams	183	2.0	10 137	2.8	304 904	2.9	754	.9	29 475	1.2	65 288	1.5
Allen	672	.7	78 619	1.0	3 362 198	1.0	177	1.9	4 336	2.6	12 467	2.8
Ashland	396	1.2	30 756	1.5	1 204 062	1.5	566	.9	23 806	1.2	64 835	1.4
Ashtabula	176	2.0	16 580	2.4	497 827	2.3	645	.8	33 164	1.2	64 870	1.4
Athens	13	8.0	1 508	5.3	47 015	6.2	362	.9	15 234	2.0	30 025	2.2
Auglaize	717	.7	84 179	.9	3 706 220	.9	304	1.4	10 405	1.6	31 711	1.7
Belmont	3	10.2	(D)	(D)	(D)	(D)	517	.7	38 010	1.2	73 179	1.5
Brown	436	1.3	54 803	1.6	1 781 719	1.7	599	1.1	17 517	1.5	36 612	1.8
Butler	282	1.6	33 080	1.6	1 235 723	1.6	456	1.1	14 582	1.9	34 146	2.2
Carroll	49	3.9	2 701	3.2	99 697	2.7	495	.8	26 705	1.3	57 650	1.5
Champaign	450	.9	80 174	.8	3 908 800	.8	310	1.4	8 092	2.2	21 458	2.8
Clark	329	1.2	62 382	.9	3 056 566	.9	242	1.6	7 228	1.9	19 589	2.3
Clermont	162	2.2	27 506	2.5	908 010	3.0	354	1.4	9 421	2.6	16 658	2.7
Clinton	498	1.0	99 326	1.0	4 441 489	1.0	211	2.0	4 393	2.6	10 174	2.9
Columbiana	159	2.0	11 172	2.4	448 378	2.4	654	.8	31 813	1.3	72 986	1.6
Coshocton	74	2.7	6 417	1.6	279 850	1.7	604	.7	26 232	1.1	64 064	1.3
Crawford	514	.8	92 636	.7	4 012 712	.6	191	1.8	5 835	1.7	16 690	1.9
Cuyahoga	3	20.0	127	22.0	3 798	22.7	21	6.5	550	9.7	748	11.5
Darke	1 238	.6	133 567	.7	5 680 046	.7	452	1.2	13 526	1.6	39 150	1.6
Defiance	610	.8	84 876	1.1	3 045 008	1.1	177	2.1	5 246	2.6	15 338	2.7
Delaware	323	1.1	69 564	1.1	2 873 842	1.1	257	1.5	7 414	3.1	20 436	3.2
Erie	229	1.1	33 263	1.2	1 397 451	1.2	104	2.2	3 658	2.7	10 930	3.1
Fairfield	390	1.3	46 441	1.3	2 152 179	1.2	501	1.1	15 082	1.9	36 880	2.2
Fayette	344	.9	106 015	.6	5 059 814	.6	149	1.9	6 101	2.2	18 248	2.1
Franklin	167	1.8	27 237	1.7	1 172 867	1.5	108	2.6	3 214	3.1	7 202	3.2
Fulton	556	1.0	78 288	1.0	3 381 608	.9	153	2.4	4 262	3.0	12 537	2.8
Gallia	29	5.8	1 593	8.7	74 683	10.9	487	1.0	18 518	1.4	40 311	1.5
Geauga	32	5.3	2 417	7.2	77 024	7.5	420	1.1	14 842	1.9	31 555	2.2
Greene	385	1.1	66 435	.9	3 012 650	.9	287	1.5	6 834	2.0	16 012	2.1
Guernsey	14	8.8	875	8.4	30 813	8.0	648	.7	30 132	1.2	58 351	1.3
Hamilton	38	3.9	5 503	3.4	211 168	3.2	118	2.2	3 085	2.7	6 519	2.8
Hancock	802	.7	120 270	.8	5 234 347	.8	186	2.0	4 549	2.5	11 990	2.4
Hardin	578	1.0	102 839	1.1	4 288 697	1.1	201	2.2	5 024	2.8	13 309	3.0
Harrison	8	9.3	454	3.9	20 774	4.1	346	.9	26 077	1.7	51 631	2.0
Henry	740	.5	99 956	.7	4 392 281	.7	185	1.8	6 721	3.5	22 165	2.7
Highland	515	1.1	65 439	1.3	2 651 716	1.3	543	1.1	19 620	1.5	48 292	1.9
Hocking	28	5.3	1 831	6.7	59 685	5.0	237	1.1	7 542	2.1	12 438	2.3
Holmes	84	3.1	6 787	3.1	290 754	2.7	1 086	.6	36 650	.9	93 501	.9
Huron	531	.9	92 219	.9	3 607 840	.9	255	1.7	7 665	2.0	19 314	2.1
Jackson	24	5.4	1 437	6.0	56 169	5.6	308	.9	15 543	1.7	34 383	2.2
Jefferson	6	10.8	445	4.7	16 022	5.4	338	.9	19 731	1.8	40 873	2.1
Knox	346	1.4	40 996	1.6	1 663 723	1.5	651	.9	26 954	1.5	68 890	1.6
Lake	7	9.3	715	4.6	22 110	4.8	71	2.9	2 725	4.9	4 650	5.6
Lawrence	3	10.5	244	11.9	8 900	11.4	306	1.3	7 579	2.1	13 511	2.2
Licking	393	1.2	54 931	1.2	2 257 530	1.1	690	.8	25 332	1.3	61 220	1.5
Logan	433	1.1	74 142	1.0	3 118 909	1.0	362	1.3	11 690	2.0	31 516	2.1
Lorain	360	1.1	58 673	1.2	1 851 008	1.2	305	1.3	10 979	1.8	26 042	2.1
Lucas	215	1.2	33 726	1.3	1 343 248	1.4	49	3.9	1 282	8.7	4 214	9.1
Madison	452	.9	116 150	.8	5 366 226	.7	186	1.9	6 276	2.5	17 201	2.3
Mahoning	120	2.1	9 226	1.7	328 791	1.8	308	1.1	12 451	1.7	31 892	2.0
Marion	377	.9	112 641	.8	4 651 083	.7	144	2.2	4 410	2.2	11 716	1.7
Medina	277	1.6	29 273	1.8	971 228	1.7	456	1.1	15 515	1.5	32 868	1.6
Meigs	14	7.3	823	11.8	37 656	11.2	353	.9	15 964	1.7	33 385	1.8
Mercer	881	.6	91 518	.7	4 183 346	.7	387	1.1	19 658	1.3	68 624	1.1
Miami	596	.9	76 360	1.0	3 565 824	.9	296	1.6	6 969	2.4	18 391	2.7
Monroe	1	25.5	(D)	(D)	(D)	(D)	492	.6	21 643	1.3	43 070	1.5
Montgomery	356	1.1	36 816	1.6	1 598 233	1.5	280	1.5	6 938	3.2	15 071	3.5
Morgan	9	9.0	279	11.6	11 309	13.0	397	.8	17 826	1.2	40 129	1.4
Morrow	379	1.1	56 759	1.2	2 300 341	1.1	317	1.3	8 876	1.7	24 497	2.2
Muskingum	75	2.7	6 855	2.5	304 298	2.5	782	.6	35 944	1.0	85 234	1.2
Noble	–	–	–	–	–	–	447	.6	20 109	1.1	35 081	1.5
Ottawa	362	.8	56 213	1.0	2 110 028	1.0	118	2.2	3 598	2.1	11 450	2.0
Paulding	452	.7	92 839	.8	3 678 134	.8	81	3.1	3 470	5.4	6 649	4.6
Perry	106	2.6	8 783	2.9	404 976	2.9	404	1.1	14 617	2.0	30 206	2.2

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Selected crops harvested—Con.											
	Soybeans for beans						Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					
	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)	Tons, dry	Relative standard error of estimate (percent)
Pickaway	417	.9	93 962	.7	4 358 129	.7	209	1.7	8 164	2.9	23 088	3.3
Pike	52	3.8	6 115	4.1	254 309	4.9	266	1.3	10 908	2.2	23 931	2.5
Portage	147	2.0	13 980	2.1	447 253	2.0	416	1.0	14 428	1.7	32 169	1.8
Preble	540	.8	69 223	.8	3 173 201	.8	366	1.2	8 661	1.8	22 016	2.3
Putnam	1 151	.5	129 313	.7	5 288 436	.7	293	1.4	8 891	1.6	27 873	1.7
Richland	352	1.4	35 142	1.6	1 391 180	1.7	494	1.1	16 732	1.9	37 158	2.0
Ross	314	1.4	52 465	1.0	2 480 648	1.0	459	1.2	19 158	1.5	46 940	1.6
Sandusky	617	.6	86 702	.8	3 555 068	.8	224	1.6	6 926	1.5	21 829	1.9
Scioto	82	2.9	13 672	2.4	512 961	2.6	380	1.1	12 721	2.1	26 620	2.3
Seneca	965	.7	119 353	.9	4 654 921	.9	322	1.5	7 031	2.3	18 533	2.8
Shelby	681	.7	77 236	.9	3 418 915	.9	324	1.3	11 624	1.5	32 716	1.5
Stark	244	1.5	20 215	1.7	781 113	1.6	614	.8	22 477	1.3	51 450	1.4
Summit	27	5.4	1 144	9.2	37 707	8.8	99	2.4	2 937	2.6	6 059	3.1
Trumbull	233	1.5	22 303	1.9	682 636	1.8	486	.9	17 362	1.4	35 192	1.4
Tuscarawas	66	3.6	6 176	4.1	251 485	4.0	670	.8	31 368	1.2	72 474	1.4
Union	487	.8	94 585	.9	3 787 503	.8	250	1.5	8 095	1.8	19 074	1.8
Van Wert	595	.4	110 874	.6	4 832 513	.6	104	2.2	2 455	2.8	6 222	3.0
Vinton	6	7.5	653	4.7	26 696	4.6	153	1.2	8 508	2.2	16 602	2.3
Warren	233	1.5	38 828	1.1	1 532 323	1.0	298	1.4	7 657	2.0	16 689	2.4
Washington	90	2.6	4 478	2.0	201 678	2.1	673	.7	23 755	.9	50 833	1.2
Wayne	480	1.2	35 523	1.6	1 490 693	1.5	976	.8	43 876	.9	116 902	1.0
Williams	508	1.1	71 497	1.1	2 808 445	1.1	208	2.1	5 014	2.4	13 498	2.7
Wood	803	.7	129 727	.8	5 686 680	.7	184	2.1	5 621	3.3	15 873	3.3
Wyandot	463	.8	84 232	.9	3 443 743	.9	117	2.4	3 235	3.1	10 212	3.3

Geographic area	Selected crops harvested—Con.			
	Vegetables harvested for sale (see text)			
	Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Ohio	**2 177**	**.7**	**45 591**	**.5**
Adams	22	6.2	107	18.5
Allen	7	8.2	164	6.2
Ashland	32	5.1	275	6.9
Ashtabula	39	4.6	293	11.7
Athens	12	9.0	51	11.8
Auglaize	2	23.6	(D)	(D)
Belmont	9	9.5	65	10.1
Brown	19	7.6	72	9.3
Butler	25	7.0	127	16.2
Carroll	27	5.4	100	8.7
Champaign	14	6.2	(D)	(D)
Clark	26	6.4	288	10.2
Clermont	33	5.5	239	9.6
Clinton	15	8.2	144	8.4
Columbiana	41	4.6	496	2.1
Coshocton	19	6.5	160	5.5
Crawford	8	10.3	50	13.6
Cuyahoga	16	6.2	163	7.7
Darke	32	4.7	423	3.2
Defiance	5	14.4	26	20.2
Delaware	26	6.2	197	10.4
Erie	36	4.0	513	6.0
Fairfield	23	6.2	77	9.5
Fayette	5	12.5	136	16.7
Franklin	21	6.2	268	6.1
Fulton	37	4.3	1 049	1.0
Gallia	37	5.2	194	9.5
Geauga	51	4.3	297	6.2
Greene	30	5.0	990	1.5
Guernsey	12	8.2	50	11.9
Hamilton	23	5.5	597	4.0
Hancock	12	6.6	477	2.4
Hardin	9	8.1	(D)	(D)
Harrison	6	10.3	41	7.8
Henry	24	4.1	2 222	1.9
Highland	20	7.9	49	10.3
Hocking	11	9.3	59	13.4
Holmes	58	3.8	243	7.1
Huron	27	5.3	6 346	.3
Jackson	15	6.8	116	11.0
Jefferson	6	13.2	22	14.5
Knox	28	5.4	107	8.8
Lake	30	4.7	344	7.4
Lawrence	40	4.7	143	6.3

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

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

Geographic area	Selected crops harvested—Con.			
	Vegetables harvested for sale (see text)			
	Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Licking	34	4.9	191	6.7
Logan	12	8.0	229	8.6
Lorain	59	3.8	1 087	4.9
Lucas	42	3.5	1 948	1.4
Madison	18	7.3	171	11.0
Mahoning	45	4.0	893	3.9
Marion	10	9.7	56	7.1
Medina	54	4.0	503	3.7
Meigs	49	3.8	845	4.6
Mercer	11	8.9	70	9.6
Miami	20	6.6	348	3.5
Monroe	5	12.4	20	15.1
Montgomery	36	4.7	205	8.7
Morgan	10	8.0	28	10.5
Morrow	12	8.1	47	11.4
Muskingum	33	4.3	216	4.9
Noble	1	27.2	(D)	(D)
Ottawa	27	4.4	1 464	1.0
Paulding	4	12.0	(D)	(D)
Perry	11	8.9	53	14.9
Pickaway	14	7.5	228	8.4
Pike	17	7.5	61	9.3
Portage	54	3.9	1 030	6.2
Preble	21	5.6	167	5.8
Putnam	33	3.6	2 811	1.8
Richland	29	6.0	207	11.3
Ross	14	8.3	58	4.6
Sandusky	54	2.6	3 930	1.2
Scioto	26	5.4	221	4.1
Seneca	13	5.6	939	3.3
Shelby	5	12.2	18	19.3
Stark	80	3.1	1 842	1.4
Summit	35	5.3	736	9.6
Trumbull	50	3.7	301	4.9
Tuscarawas	14	8.4	70	10.8
Union	11	9.5	34	11.5
Van Wert	6	9.4	14	7.6
Vinton	7	9.8	15	11.7
Warren	40	4.6	318	6.4
Washington	35	4.1	740	4.6
Wayne	75	3.5	521	6.1
Williams	12	8.5	688	2.4
Wood	46	3.8	2 864	2.1
Wyandot	3	13.3	(D)	(D)

[1]Data are based on a sample of farms.

Table G. **Coverage Estimates: 1997**

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

Item	Census total	Coverage total[1]	Adjusted census		Coverage adjustment (percent)
			Total	Relative standard error (percent)	
Farms ..... number	68 591	10 131	78 722	2.0	12.9
Land in farms ..... acres	14 103 085	468 799	14 571 884	1.4	3.2
Average size of farm ..... acres	206	46	185	(X)	(X)
Farms by size of farm:					
Less than 10 acres	5 271	1 973	7 244	7.5	27.2
10 to 49 acres	15 811	5 089	20 900	4.8	24.3
50 to 179 acres	26 658	2 260	28 918	2.7	7.8
180 acres or more	20 851	809	21 660	2.3	3.7
Farms by value of sales:					
Less than $2,500	15 967	7 582	23 549	4.9	32.2
$2,500 to $9,999	16 750	1 591	18 341	3.6	8.7
$10,000 or more	35 874	958	36 832	1.9	2.6
Market value of agricultural products sold $1,000	4 684 277	43 030	4 727 307	.8	.9
Farms by type of organization:					
Individual or family	59 716	10 025	69 741	2.3	14.4
Partnership, corporation, or other	8 875	106	8 981	2.8	1.2
Farms by tenure of operator:					
Full owners	40 819	8 743	49 562	2.9	17.6
Part owners	21 505	487	21 992	1.4	2.2
Tenants	6 267	901	7 168	5.4	12.6
Operators by place of residence:					
On farm operated	53 398	8 621	62 019	2.2	13.9
Not on farm operated	10 983	1 040	12 023	5.3	8.7
Not reported	4 210	470	4 680	8.8	10.0
Operators by principal occupation:					
Farming	31 022	2 544	33 566	2.2	7.6
Other	37 569	7 587	45 156	3.0	16.8
Operators by sex:					
Male	63 852	8 835	72 687	2.1	12.2
Female	4 739	1 296	6 035	8.1	21.5
Operators by race:					
White	68 272	10 074	78 346	2.0	12.9
Black and other races	319	57	376	30.9	15.2
Operators by years on present farm:					
4 years or less	6 750	2 461	9 211	5.5	26.7
5 years or more	51 439	6 379	57 818	1.8	11.0
Not reported	10 402	1 291	11 693	7.6	11.0

[1] See text in Appendix C regarding coverage estimates.