For the first three characteristics presented in table 18, the average index of inconsistency is about 20 percent, and for the last two characteristics it is about 43 percent. These results imply that there is less error in reporting characteristics such as size of farm, acres of cropland harvested, and tenure than there is in reporting of characteristics such as residence or year began operation.

By way of comparison with results from the 1960 population census,[3] the average index of inconsistency for various age classes was about 5 percent and for number of children ever born, about 12 percent. Higher indexes were obtained for educational attainment classes and personal income classes, being 35 and 41 percent, respectively. The average index for residence in 1955 was 58 percent.

A final index of response variability presented in table 18 is the proportion of coverage check farms in a class which were identically reported in the census. With reference to the above diagram, this measure is simply the number of farms identically classified, divided by the number in the class in the coverage check, or $a/(a+c)$. When the proportion of farms in a particular coverage check

[3] Ibid., table 24.

class is small, this index can be used in the same way as the index of inconsistency.

Up to this point we have considered the effect of reporting errors on frequency distributions of correctly counted farms classified by various characteristics. Table 19 shows the effect of reporting errors on estimates of total acres in place and, for those cases where large differences occurred, indicates some reasons for the differences. The major question explored in this analysis is the extent to which large differences resulted from erroneous omission or inclusion of entire tracts, as compared with incorrect reporting of acres for correctly included tracts.

An estimated 56 percent of the cases with large differences in either direction involved erroneous inclusion or omission of entire tracts. Changes in control of the tract during the census year were apparently not a major factor in the erroneous omission of tracts. Of the 160,000 farms with large differences due to the omission of entire tracts only 24,000 involved a change in operator during 1964--for some or all of the omitted tracts. In about one-third of the remaining cases (46,000 out of 136,000) none of the omitted tracts was used for crops in 1964.

Table 13. Correctly Counted Farms by Size in Census and in Coverage Check

(Thousands of farms. Data may not add to totals due to rounding)

Census size classification	Number of farms	Coverage check size classification											
		Under 10 acres	10 to 49 acres	50 to 69 acres	70 to 99 acres	100 to 139 acres	140 to 179 acres	180 to 219 acres	220 to 259 acres	260 to 499 acres	500 to 999 acres	1,000 to 1,999 acres	2,000 acres and over
Number of farms......	2,973	149	525	195	285	336	332	206	171	441	193	89	51
Under 10 acres..............	161	132	24	2	-	3	1	-	-	-	-	-	-
10 to 49 acres..............	546	15	480	23	19	4	2	-	-	1	-	-	1
50 to 69 acres..............	191	-	13	149	12	11	1	1	2	2	-	-	-
70 to 99 acres..............	295	-	6	15	240	20	7	3	-	4	-	-	-
100 to 139 acres...........	329	1	-	6	14	273	23	5	2	5	-	-	-
140 to 179 acres...........	330	-	1	-	-	21	275	17	7	9	-	-	-
180 to 219 acres...........	217	-	1	-	-	3	17	169	10	14	3	-	-
220 to 259 acres...........	160	-	-	-	-	-	3	7	131	18	-	-	-
260 to 499 acres...........	429	-	-	-	-	-	4	5	18	378	22	2	-
500 to 999 acres...........	186	-	-	-	-	-	-	-	-	8	165	12	-
1,000 to 1,999 acres.......	83	-	-	-	-	-	-	-	-	2	2	74	5
2,000 acres and over.......	46	-	-	-	-	-	-	-	-	-	-	-	44