

Chapter IV. ACTIVITIES BEFORE THE ENUMERATION

The first steps in the pyramiding system of checks to control the quality of the 1960 field work were performed before the enumeration began by the crew leaders in each District Office.

Before giving an enumeration assignment (EA) to an enumerator, the crew leader himself was to canvass the area and (1) make sure that there was a map for the area; (2) indicate on this map the sequence in which the enumerator should cover each ED; (3) prelist the first sequence of housing units and a scattering of others; (4) estimate, in urban ED's, the number of housing units in each block; and (5) list the names and addresses of, and the estimated number of people in, all places requiring special enumeration, such as hotels, missions, jails, hospitals, and other institutions. The crew leader was also to report any problems that he found with (a) the boundaries of an ED, (b) street names that were different from those on the map, and (c) incorporated places that were not separate ED's. In resort areas, he was also to indicate whether or not each ED contained 50 or more seasonal vacancies.

The crew leader recorded the results of his preparatory work on form F-236, Crew Leader's Check List for Map Review and Preparatory Work. After the enumeration was completed, about 80 percent of these forms were received in the Jeffersonville Operations Office. One percent of those received were selected for analysis and seemed to be representative: Of these, 80 percent were for two-stage EA's of which 45 percent were urban block EA's; and the corresponding proportions in the universe were 80 and 43. The following discussion is based upon this 1 percent sample.

Table 7.--Completion Dates for Preparatory Work

(Cumulation proportion of EA's. Includes only forms having a pre listing of units and a certified completion date entered on them)

Certification date	All EA's	Two-stage areas					Single-stage areas
		Total	Urban areas			Rural areas	
			Total	Block	Non-block		
March 10 or earlier.	.07	.01	.01	(Z)	.02	.02	.31
March 11.	.10	.03	.02	.01	.03	.05	.39
March 12.	.15	.06	.03	.01	.06	.12	.53
March 14.	.19	.10	.07	.04	.13	.17	.54
March 15.	.25	.18	.17	.14	.21	.23	.54
March 16.	.32	.27	.24	.22	.27	.35	.54
March 17.	.40	.37	.34	.29	.41	.44	.54
March 18.	.47	.45	.42	.37	.50	.53	.56
March 19.	.58	.57	.54	.47	.65	.64	.61
March 21.	.64	.63	.62	.57	.69	.67	.67
March 22.	.69	.67	.67	.63	.73	.68	.79
March 23.	.73	.71	.71	.68	.75	.71	.84
March 24.	.81	.78	.78	.76	.81	.79	.90
March 25.	.85	.84	.83	.82	.86	.84	.92
March 26.	.91	.91	.90	.89	.92	.91	.95
March 28 or later.	1.00	1.00	1.00	1.00	1.00	1.00	1.00

(Z) Less than .005

Source: Forms F-236, Crew Leader's Check List for Map Review and Preparatory Work.

Table 8.--EA's With Individual Questions on Map Problems not Answered

Type of map problem	All areas	Two-stage areas					Single-stage areas		
		Total	Urban			Rural	Total	Urban	Rural
			Total	Block	Non-block				
All EA's.....	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Physical boundaries changed.....	.13	.13	.12	.11	.15	.14	.13	.12	
Boundaries invisible or difficult to locate.....	.14	.14	.13	.12	.15	.15	.14	.11	
Street names changed.....	.16	.16	.15	.14	.16	.20	.15	.15	
Incorporated places not separate ED's.....	.13	.13	.12	.11	.14	.15	.13	.12	

Source: Forms F-236, Crew Leader's Check List for Map Review and Preparatory Work.

Table 9.--Map Problems

(Proportion of EA's)

Type of map problem	All areas	Two-stage areas					Single-stage areas		
		Total	Urban			Rural	Total	Urban	Rural
			Total	Block	Non-block				
All EA's.....	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EA's with one or more map problems ¹ ..	.25	.26	.25	.20	.32	.29	.23	.22	.23
Physical boundaries changed.....	.02	.01	.01	.01	.01	.03	.03	.03	.04
Boundaries invisible or difficult to find.....	.11	.11	.09	.06	.12	.17	.11	.07	.14
Street names changed, etc.....	.18	.18	.18	.15	.23	.18	.15	.19	.12
Incorporated places not separate EA's.....	(Z)	(Z)	(Z)	(Z)	-	.01	-	-	-
EA's with no map problem.....	.57	.56	.59	.65	.48	.49	.59	.58	.59
Not ascertainable.....	.18	.18	.16	.15	.20	.22	.18	.20	.18

Z Less than .005.

¹The detail as to type of problem adds to more than this total because in some EA's there was more than one type of problem.

Source: Forms F-236, Crew Leader's Check List for Map Review and Preparatory Work.

The purpose of the prelisting of some housing units by the crew leader was to check on enumerator coverage of housing units by seeing how many of the units listed by the crew leader were not found by the enumerator. Table 10 shows that prelisting took place in 98 percent of the assignments. However, in only about three-quarters of the assignments was the correct number of housing units prelisted. In urban areas, where 35 units were to be listed, the discrepancy was always on the low side. (It was impossible to list any more because there were only 35 lines on the form.) In rural areas, where the prescribed number could vary from 10 to 25, crew leaders listed more addresses than required about as often as they listed less than required.

The estimation of the number of housing units in each urban block had two purposes. One was to compare with the number of housing units that enumerators found in each block in order to detect undercoverage. The other was to determine from the total estimate of housing units whether the assignment was small enough for one enumerator to complete in the allotted time.

Table 12 indicates that crew leaders prepared estimates of the number of housing units in 93 percent of the EA's in urban areas. They recommended dividing the assignment into two or more parts 4 percent of the time. The number of assignments actually split is not known, but the indication is that two to three times as many EA's were split after enumerators were in the field as were split before they began work. Many of those split later may have been in rural areas, which were not covered by this part of the preparatory check.

The data in table 9 show that crew leaders answered at least one question on map problems about 80 percent

of the time. Twenty-five percent of all the EA's were noted to contain one or more map problems. These problems were most frequent in the two-stage, non-block urban areas, where 32 percent of the EA's were reported to have one or more map problems.

The most frequent type of map problem noted was the change of streets. New highways, new schools, and new housing developments had brought changes in both names and directions of streets. This was a problem in at least 18 percent of the EA's; it was a problem in at least 23 percent of the two-stage urban nonblock EA's. Enumeration district boundaries that were "invisible" or difficult to distinguish were reported by the crew leaders in 11 percent of the EA's, especially in two-stage rural areas.

A sample of the crew leaders' reports on the preparatory work shows that it had been completed in 91 percent of the areas by March 26, 1960 (see table 7). A time study in 1960 indicated that the average crew leader spent 38.3 hours on this work. If each crew leader were responsible for 15 enumerator assignments, the canvass of each area would have averaged two hours and 33 minutes.

An opinion survey of a sample of crew leaders taken in November 1960 revealed that 69 percent of the crew leaders said that there was not enough time allowed for this preparatory work. Thirty-two percent of them thought that the training for this stage of their work had been inadequate.

While the crew leader was performing his preparatory work, the Technical Officer in each District Office was to observe him periodically and review his

work systematically by noting on a form F-288, Evaluation of Map Review and Preparatory Work, whether or not the crew leader was following his instructions. Enough of these forms were received after the census to account for 56 percent of the crew leaders. Others were probably filled out but failed to reach the collection point in Jeffersonville. In fact, 15 percent of the two-stage District Offices failed to send any. There were no controls in Jeffersonville for assuring that all the quality control materials were received, nor was the necessity for turning in these records emphasized in the instructions to the District Offices. In two-stage District Offices which did send forms, 66 percent of the crew leaders were covered.

Table 13 shows the overall results of the Technical Officer's evaluation, item by item. Crew leaders were found to have done the work incorrectly only 6 percent of the time. The proportion of cases in which an item

Table 10.--Crew Leader Prelisting

(As indicated on the Advance Transmittal List (ATL))

Entries on Form F-236	Urban areas ¹			Rural areas ²		
	Total	Two-stage	Single-stage	Total	Two-stage	Single-stage
Total forms.	1.00	1.00	1.00	1.00	1.00	1.00
Crew leader designated type of area correctly...	0.93	0.94	0.91	0.92	0.93	0.90
Some dwellings prelisted.....	0.91	0.93	0.88	0.90	0.92	0.88
35.....	.72	.73	.65	.05	.05	.07
30-34.....	.10	.09	.14	.03	.04	.01
26-29.....	.02	.02	.02	.04	.03	.07
25.....	.03	.03	.03	.50	.51	.48
20-24.....	.02	.02	.02	.14	.14	.13
16-19.....	.01	.01	-	.05	.05	.05
12-15.....	(Z)	(Z)	-	.07	.07	.06
1-11.....	.01	.01	.02	.02	.03	.01
No dwellings prelisted.....	0.02	0.01	0.03	0.02	0.01	0.02
Crew leader designated type of area incorrectly.	0.07	0.06	0.09	0.08	0.07	0.10
Prelisting correct for type designated.....	.03	.02	.03	.05	.04	.07
Prelisting incorrect for type designated	.04	.04	.06	.03	.03	.03

Z Less than .005.

¹Crew leaders were told to list 35 dwelling units in these areas.

²Crew leaders were told to list 25 units in these areas if there were 15 units on the first three roads.

Source: Forms F-236, Crew Leader's Check List for Map Review and Preparatory Work.

was not evaluated at all by the Technical Officer was 17 percent; however, 38 percent of this was due to items which were inapplicable in most EA's, such as the item on seasonal vacancies, and to incorporated places not made into separate ED's.

Table 11.--Comparison of Crew Leader's Estimate of Size of ED's With Enumerator's Count

(Proportion of urban ED's)

Crew leader estimate as percent of enumerator count	Number of housing units listed by enumerator				
	Total urban ED's	Less than 200	200-299	300-399	400 or more
Total.....	1.00	1.00	1.00	1.00	1.00
Equal (100%).....	.09	.12	.09	.07	.06
Overestimate.....	.20	.23	.25	.25	.14
111 or more.....	.04	.09	.04	.03	0
106 to 110.....	.06	.05	.06	.10	.05
101 to 105.....	.10	.09	.13	.12	.09
Underestimate.....	.71	.65	.68	.68	.80
95 to 99.....	.26	.24	.25	.24	.33
90 to 94.....	.17	.13	.15	.20	.21
85 to 89.....	.11	.12	.12	.10	.07
80 to 84.....	.07	.08	.07	.06	.07
75 to 79.....	.04	.05	.02	.03	.03
Less than 75.....	.06	.03	.07	.05	.09

Source: Forms F-236, Crew Leader's Check List for Map Review and Preparatory Work.

Table 12.--Crew Leader Estimates of Size of EA's and Recommendations for Splitting

(Urban EA's only)

Item	Total urban EA's	Block	Nonblock
Total urban EA's.....	1.00	1.00	1.00
Number of housing units estimated.....	.93	.97	.88
Less than 500 housing units	.86	.89	.83
500 housing units or more..	.07	.08	.05
Splitting recommended....	.04	.05	.04
Splitting not recommended	.03	.03	.01
Number of housing units not estimated.....	.07	.03	.12

Source: Forms F-236, Crew Leader's Check List for Map Review and Preparatory Work (Urban areas)

As a result of his review, the Technical Officer was to make a judgment as to whether any of the crew leaders required additional observation and review. However, there were no quantitative acceptance standards established for making this decision. There is no information as to how many crew leaders were judged to need further visits and more instruction or as to how many

such visits were made.

The work of the Technical Officer was supposed to have been reviewed and evaluated by the Program Technician in reports to the Regional Field Director. This was not systematically done, and there are only a handful of such reports.

Table 13.-- Technical Officers' Evaluation of Crew Leaders' Map Review and Preparatory Work

(Proportion of EA's)

Item evaluated	Total crew leader districts for which reports received ¹				Areas identified as urban				Areas identified as rural			
	Total	Correct	In-correct	Item not eval.	Total	Correct	In-correct	Item not eval.	Total	Correct	In-correct	Item not eval.
Map for each ED.....	1.00	.89	.04	.07	1.00	.91	.04	.05	1.00	.89	.04	.07
Order of visit.....	1.00	.83	.08	.09	1.00	.85	.09	.06	1.00	.85	.06	.09
Listing.....	1.00	.80	.11	.08	1.00	.84	.11	.05	1.00	.79	.12	.09
Estimating number of dwellings in each block.....	1.00	.78	.10	.12	1.00	.82	.10	.08	(X)	(X)	(X)	(X)
Dividing assignments..	1.00	.74	.07	.19	1.00	.77	.08	.15	(X)	(X)	(X)	(X)
Places requiring special enumeration procedures.....	1.00	.74	.07	.19	1.00	.75	.07	.18	1.00	.74	.07	.19
Boundary problems.....	1.00	.77	.05	.18	1.00	.78	.05	.17	1.00	.79	.06	.15
Street changes.....	1.00	.77	.05	.18	1.00	.79	.05	.16	1.00	.78	.06	.16
Incorporated places not separate ED's....	1.00	.70	.02	.28	1.00	.71	.02	.27	1.00	.71	.03	.26
Seasonal vacancies ² ...	1.00	.65	.02	.33	1.00	.66	.02	.32	1.00	.68	.04	.28
AVERAGE.....	1.00	.77	.06	.17	1.00	.79	.06	.15	1.00	.78	.06	.16

X Not applicable.

¹Includes some EA's for which type of area is unknown.

²This check was to have been made only in "resort areas".

Source: Forms F-288, Evaluation of Map Review and Preparatory Work.