

Panel on

Planning the 1960 Censuses to Meet National and Local Needs

Discussion by J. T. Marshall - Canada

I am sure, Mr. Chairman, we have all listened with interest and envy to the many challenging and stimulating plans which our colleagues from Suitland have presented for our instruction this morning. Conrad Taeuber has given us a broad and timely insight into the proposals for the 1960 Population Census of the United States which introduces many new and intriguing approaches in the application of the enumeration, tabulation and publication of the Census results. Wayne Daugherty has outlined to us the plans for Housing and here, too, we find new approaches being brought into play. Also Henry Shryock has sketched the new items that will be available in your 18th Census in so far as it measures the human resources. I am sure you will agree, Ladies and Gentlemen, that they have given us a very comprehensive picture of what would happen in the Census, the sort of things we may expect out of it and, in fact, have covered the "Census Water-front" very thoroughly indeed.

The plan for Agriculture sets out, at least to the Canadian census takers, one of the most challenging departures in the census proposals. The decentralization of the central collection, tabulation and analysis processes to the Town of Parsons in the State of Kansas will, I am sure, produce many new problems and stimulate many new techniques for meeting and solving them. I am sure everyone here wishes the Bureau of the Census a full measure of success in these undertakings and that their reward will be in keeping with all the hard work that has gone into their efforts.

We Canadians face many of the same problems confronting our United States friends, though on a smaller scale. While the scale of our operation is far smaller, with a population of 18-19 million expected in 1961 compared to the 190 million for the United States, we have the added problem of a small population scattered over a large area. Thus, although we are aware of the advantages of separate enumeration for each census, we feel that we must live for a time yet with a simultaneous enumeration for our four censuses - Agriculture - Housing - Merchandising and Services and Population. Our decision is as much due to physical, as it is financial considerations. It is rather obvious, Mr. Chairman, that large or small, so many of the problems which underlie these proposals are of such great interest to all census takers - and to those who use the product of their efforts - it is hard to know where to start this discussion. It has been suggested that I tell you something about the Canadian proposals in so far as the technicians have developed them, but I must point out that the Cabinet has not yet given its approval to any census proposal. One thing is almost certain and that is because of the constitutional requirement, Census Day in Canada will be June 1, 1961.

Of special interest to me personally is the question of timeliness. Our speakers have emphasized the need for making census material available as quickly as possible and have pointed out how they propose to use sampling procedures and mechanical equipment to reduce production times for the results by 12 to 18 months. We in Canada also propose to reduce our enumeration time in 1961 by utilizing sampling techniques. In our population census, for instance, there will be some 34 questions on the 1961 schedules of which 12 will be taken on a sample basis. This compares to a total of 30 questions asked in 1951, all of which were on a hundred per cent basis. It is hoped that such devices will be of use in relieving pressure on the enumerators and assuring a speedier return of the material from the field.

From the point of view of saving time by the use of electronic equipment, we were a little bit proud of ourselves because in this respect we accomplished a good deal in 1951. At that time we introduced the "mark sense" reading devices and cut sharply from the several release dates - two to four years. As we all realize - one of the "devils" of volume statistics is the long delay in the preparation of material for processing by high speed computers and tabulators. The trick of getting the material into the machines is the "defile" through which all our armies of data must pass. By the use of electronic "mark sense" readers we were able - in 1951 and 1956 - to cut short this operation and the resulting increase in timeliness over the previous Census releases was astonishing. We trust that the U.S. Bureau of the Census will achieve even greater results from their planning for 1959 and 1960 than we did with ours nearly a decade ago, because even the gains of 1950-51 - over 1940-41, which we still hope to maintain, - were not enough to meet the demands for more and more complicated analyses and faster release of the results.

As a further step along the "census road of romance" - that Bill Madow referred to at the session on Saturday - in respect to machines we expect to use an electronic computer in the 1961 Census of Canada, but we know full well that further time reductions comparable to those of 1951, cannot be expected again. The added saving in time will be largely a problem of getting the material into the computer faster and new methods of achieving this - we are now confident - will be worked out in time for the Canadian test in June, 1959. The advantages of using "brains" or "memories" in metallic form for processing would seem to be cheaper operations and the possible improvements in quality and variety of the data, as so ably pointed out by Mr. Shryock. Of course, in the use of electronic computers, the Bureau of the Census people are the "Granddaddies" of all census takers - so once again we are looking forward to

the valuable lessons that we shall learn - in computer application - from their efforts and their experiences.

We are all, I am sure, exceedingly interested in the heroic efforts being planned by all countries taking censuses to improve coverage and quality. I am afraid some of us may feel that these efforts will prove somewhat costly, and in Canada we have had to ask ourselves "whether to us the gain will compensate for the increase in cost". In our case the 1951 Census of Population and Housing was checked by the independent and continuing monthly sample, and though we may be "kidding" ourselves, the enumeration in terms of coverage did not seem to be inaccurate by more than 1.5% when the checks were completed. While we may have been more lucky than accurate, I am reminded that in the "days of my youth in census learning" it was Virgil Reed who on my first visit to Washington - in the early thirties - impressed all who "sat at his feet" with "it matters not too much that a census misses this 2 per cent of the population but it is important that the loss can be reasonably measured - sometimes the cost of picking up the remaining 2 per cent is more than the actual counts are worth". Thus, while we cannot afford to incorporate many of the proposals we would like to in our planning, we do hope to achieve in the Canadian plans an even better coverage than we had in 1951 and I expect those plans will not be too divergent from those we have heard outlined at this meeting.

In the agricultural field the pressures to produce additional statistics have been acute in our country, as I guess they have been in yours from the remarks of Mr. Taeuber. We have been asked, by private sources and by Government Departments engaged in administration of agricultural and forest products programmes, to supply additional information on a variety of items including farm mechanization, contract farming and farm classification. To some extent, however, we have been able to resist pressure towards greatly enlarging our agriculture census, largely due to the fact that under the Canadian Statistical system we prepare a co-ordinated system of annual and monthly agriculture statistics. Thus, while many people would like us to ask a great number of questions about the machinery on farms, we are able to supply up-to-date and continuing production figures on farm machinery from other sources. From these figures we can prepare reasonably accurate estimates of machinery stocks and therefore feel quite justified in holding down the number of questions on our census schedules. At this time we are taking a very exten-

sive survey of farm revenue and expenditure which will yield a great deal of information on farm household activities, thus eliminating the need for extensive census enquiries along this line.

By sharpening up their definitions of a farm, our census "ag" boys hope to improve the coverage and consequently the quality of their statistics. Recognizing that continuity must be maintained, they plan to ask about 225 questions on agriculture compared to 338 for 1951 and 124 in 1956. One of the real areas of difficulty has been caused by the pressure from all the forestry agencies who are interested in "forestry products taken off farms". But this appears to be a pretty genuine pressure in our country at least, because these are data which cannot be collected and measured successfully by means other than a census.

In the 1961 Canadian Census of Housing, we are planning a number of changes and it is proposed to drop about nine questions which were carried in 1951, to make room for a slightly larger group of "new" questions. Of the so-called "new" questions, several were carried prior to 1951, but for various reasons were dropped at that time. Demand has been such as to warrant their inclusion again. However, the overall size of the 1961 Housing Census will be little changed to that of 1951. The chief change will be in emphasis - the proposed inquiries in 1961 being weighted more heavily toward items directly related to the dwelling (such as age of dwelling, value, and number of bedrooms) at the expense of items relating more to the household's standard of living (such as washing machines, vacuum cleaners, telephones and radios). Statistics relating to these latter are already available from the annual "Household Facilities" survey.

While we in Canada have been afforded an intimate insight into all the planning and discussion that has gone on - we must say that we are grateful that in 1960 the U.S. will once again provide a full-scale test for what DBS has to do in 1961 and that once again we may, by close observation, benefit from the successes they will achieve in their census operations. We shall approach our problems with the satisfaction that during the next two or three years it will be the privilege of both Bureaux to live together in the stress and in the strain, as well as in the accomplishment, because since the Canada-United States joint census committees were established in June, 1953, one of the good things that has come out of all this has been the mutual trust and understanding that has prevailed in planning - together - the censuses for both countries.