

Floor Discussion

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The first paper, Issues in Estimating the Population of Canadian Municipalities, presented by Rosemary Bender of Statistic Canada, discussed the need for intercensal local population estimates with adjustment for coverage. Administrative records will play an important role in developing the appropriate estimates.

The second paper, Evaluating Small Area Population Estimates in Britain, was presented by Stephen Simpson of the University of Manchester. Dr. Simpson compared the various models used for intercensal small area estimates.

The third paper, Sub-County Population Estimates in the United States: Issues and Prospects, was presented by Sam Davis of the United States Census Bureau. Mr. Davis discussed the method employed by the U.S. Census Bureau to develop sub-county estimates. Mr. Davis stated that while this estimation model appears to be a component method, it really is a shift-share process.

Ronald Prevost of the Census Bureau, who chaired the session, started the floor discussion by remarking that: (1) developing accurate small area estimates (particularly for governmental units) is a difficult task whose complications arise from coding information to very discreet geographies that change over time. (2) Two major challenges exist for estimates: the need to develop more accurate geographical coding schemes and; the development of better accuracy assessments than mean absolute percent errors (the value of which for accuracy assessments is a function of population size). (3) All statistical and operational models contain error. The comparison of estimates to census results should not be termed error because a census is just another independent measurement methodology that attempts to statistically represent "ground truth". Censuses and estimates would yield the same results if they functioned without error. We should direct research to define what causes the differences in our methodologies. Only then will better designs be created. (4) Annual estimates provide an inexpensive, generally high quality, alternative to more costly and less frequent censuses.

Signe Wetrogan of the Census Bureau asked how administrative records can be apportioned geographically. Ms. Bender replied that postal codes are generally available in Canada. However, in rural areas, the postal codes sometimes cross municipal boundaries. Professor Simpson stated that postal codes are often used in Britain and that the codes are sufficiently detailed to identify areas as small as 20 to 30 housing units. Over the next few years, the patient registers of general practitioners will be cleaned to permit their use as well.

Danny Pfeffermann of the Hebrew University of Jerusalem asked whether it might not be better to combine various modeling methods rather than comparing them. Professor Simpson stated that the cost of implementing multiple methods might be prohibitive. Ronald Prevost added that averaging could actually reduce accuracy in some cases if one of the models is erratic.

Charles Alexander of the Census Bureau asked how and when residency is established and how definitional discrepancies are handled. Ms. Bender replied that most of the Canadian administrative files use census residence definitions. Changing boundaries and the decision that the Canadian Census now count non-permanent residents create complications. Professor Simpson stated that different estimates, for example including or excluding students or tourists, are appropriate for different purposes. Mr. Davis added that there are many problems but not many good solutions.