

Central Bureau of Statistics Israel

**Submission to the United Nations Statistics Division Website on
2010 World Population and Housing Censuses**

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The 2008 Israel Integrated Census of Population and Housing

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Rising census costs, concerns about respondent non-cooperation and the need for more timely data have led Israel, like other countries, to develop innovative census designs. Israel's 2008 integrated census uses the Population Registry (PR) as the basis for the 100% enumeration, and a sample survey to evaluate the accuracy of PR addresses and collect the traditional long-form census data. The country is divided into EAs each containing about 50 households living at geographically contiguous addresses. Enumerators administer questionnaires to all households in a 20% sample of the EAs. Independently, a list is generated of persons listed in the PR at the sampled addresses. The persons enumerated are compared with those on the PR list to identify those not enumerated. We locate by phone the "PR excess" in order to determine their correct addresses.

Coverage estimates are based on the methodology of Dual System Estimation and represent an extension of the classic model for estimating undercount in census data. The extension accommodates "false captures" in the PR list. On the basis of address information obtained in the field survey we compute undercoverage and overcoverage parameters for estimation groups designed to be homogeneous with regard to coverage errors. Using these parameters we compute a census weight for each person in the PR. Census estimates for population groups and/or geographical areas are the sums of the census weights for the persons listed in the PR who are members of those groups and/or located in those geographical areas.

The design of the integrated census is intended to overcome two major shortcomings of Israel's Population Registry: inaccurate addresses and lack of the

information usually collected in a census long-form. The sample survey provides the information needed to evaluate the accuracy of addresses in the PR as well as that obtained in the sample long-form questionnaire of a traditional census. Implementation of Israel's integrated census requires the existence of a PR; creating a sampling frame of EAs comprised of clusters of contiguous addresses; creating a list of persons listed in the PR at addresses in the sampled EAs; linking the persons in the PR list to the persons enumerated in the sample survey in order to identify PR excess; and procedures which can be rapidly implemented both for identifying persons comprising the PR excess and locating them quickly in order to determine their correct addresses. If the addresses in Israel's PR were accurate it would be sufficient to carry out the sample survey and the search for PR excess would be unnecessary. Since Israel's integrated census is designed specifically to overcome the shortcomings in the PR, its design would not be appropriate for countries without a PR or its equivalent, or necessary in one whose PR was essentially error-free.

Israel's integrated census is heavily dependent on IT. Data collected by enumerators via computer assisted personal interviewing (CAPI) is transmitted daily from their homes over the internet so that at the close of fieldwork the results of the sample survey may be immediately linked with the PR list to identify PR excess and minimize delay in the search for them. The field enumeration will last two months; the CAPI stage to locate PR excess will last three months. The total planned elapsed time between census night and the conclusion of the CAPI stage is approximately six months. Israel's integrated census could, of course, be conducted using data collection on paper forms and subsequent data entry, but the process would take longer.

The integrated census meets three of the four "essential characteristics" of a census as specified in the Principles and Recommendations. "Individual enumeration" is accomplished both by using the PR for the 100 percent count and a field survey for the sample questionnaire. The integrated census applies "universally" to the Israel population as defined for the purpose of the census. "Simultaneity" is achieved by use of the PR updated to census night and field data collection defined to refer to census night. The fourth essential characteristic of a census, "defined periodicity," is not intrinsic to the integrated census, which can in principle be conducted with any periodicity desired subject to administrative and budgetary considerations.

A full description of the 2008 Israel Integrated Census can be found on the Israel Central Bureau of Statistics web site: http://www.cbs.gov.il/mifkad/census2008_e.pdf