

New Census Modalities in Israel

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The 2008 census in Israel was conducted as an integrated census, using registers, primarily the Israel Population Registry (IPR). Two sample surveys were conducted to adjust for weaknesses in the IPR, mainly undercount and over-count and absence of certain socio-economic variables. The IPR contains records for all permanent residents in the country and is updated continuously by vital events and migration (all domestic movements and immigration). The method used for adjustment was the Dual System Estimation (DSE) method. Two independent sampling frames were used to draw the samples for the surveys that were used to adjust for undercount and over-count in the IPR mainly un-updated addresses and emigrants. The undercount survey drew on area samples based on a computerized Geographic Information System (GIS) covering the whole area of the country, building and streets layers. The undercount survey was also used to provide socio-economic information which is not available from the IPR. For the over-count survey the IPR was used as the sampling frame. Administrative Households (AH) were constructed from the IPR using family relationships and address as the key variables to cluster family members into an AH. The Area sample covered approximately 20% of the built up area in the country and the IPR sample was approximately 10% of the AH. The surveys were conducted successively; beginning with the undercount survey. Both surveys used computerized questionnaires, the undercount survey was carried out by face-to-face interviews using a laptop and the over-count survey was conducted by telephone interviews. An online computerized query system was incorporated in both surveys to minimize misconduct and other flaws in the data collection procedures. Collected data was transmitted daily in both surveys. The response rate for the undercount survey was 83% (4% refusals). The response rate for the over count survey (telephone interview) was 78% (6% refusals). Population estimates were adjusted according to the census results. The fully computerized census operation made it possible to publish the first census estimates two months after completion of data collection and the first extended full report was uploaded to the organization's website 6 months later. Since the 2008 census, adjustments coefficients are updated annually based on vital events and migration movements registered in the IPR. These updated coefficients correct population estimates each year.

Key Words: Dual system estimation, GIS based sample survey, integrated census, register based census