

A New Interface for Accessing Census Interaction Data on the Web

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Abstract. The Special Migration Statistics (SMS) and the Special Workplace Statistics (SWS) are amongst the most underused products derived from the Census of Population in Great Britain and yet they are fundamentally important for identifying migration and commuting patterns throughout the country. The SMS provide detailed spatial information on the migration behaviour of key sub-groups whilst the SWS are essential for defining travel to work areas. There are various reasons for the under-exploitation of these data sets, including problems of size, complexity and suppression, but there is also a lack of user-friendly software with which to extract counts from the databases in which the flows are stored. The new software that has been developed allows users to access and extract so-called 'Origin-Destination Statistics' using a Web-based Interface to the Census Interaction Data (WICID). The project has been funded by the ESRC under the Census Development Programme. The system has been created in advance of the 2001 Census with a view to being developed further as an interface to the 2001 Origin-Destination Statistics when they become available. WICID currently contains the 1991 Census migration flows and journeys to work between districts and between wards (or postal sectors in Scotland), together with sets of flows for certain tables that have been re-estimated by other researchers to adjust for suppression and underenumeration. The prototype version of WICID allows a user to build a query for the extraction of one or more data items from tables equivalent to those identified in the 1991 Census SMS and SWS User Guides. The WICID interface provides users with a number of screen-based tools for setting the parameters governing each data extraction and for building queries of varying levels of complexity. One important facility allows users to select origin and destination areas at different spatial scales within the context of one query. This means that it is possible, for example, to extract migration flows from a small number of origin wards to a set of destinations comprising other wards, districts, counties and regions. Underpinning the data extraction process within WICID is a set of metadata files containing information about each data set, geography, table, variable and user. When a query has been constructed, the information is passed to a relational database management system (RDBMS) as a set of SQL statements that retrieve the relevant flow data. This paper will present a summary of some of the more technical aspects of the system, including its architecture, metadatabase framework and operational structure but it will also demonstrate how the user interface works, providing an example of how the system might be used and offering a series of recommendations on how the system might be developed in the future.