

Outline of the Grid Square Statistics, Compiled from the 2010 Population Census Results

1. Overview

The grid squares statistics of the 2010 Population Census are compiled from the results of the 2010 Population Census (taken as of 0:00 a.m., 1 October 2010), by allocating the tabulation data to grid squares.

These grid squares statistics have been compiled since 1965 despite the fact that the grid squares statistics of the 1965 Population Census were tentative results for certain limited areas, e.g. metropolitan area.

The grid squares statistics are utilized as basic data in many fields, such as city planning, regional development, disaster prevention or environmental planning, market analysis, scientific research and so on.

2. Grid Squares

The grid squares used in the results are based on the "Standard Grid Square System" which was determined by the Minister's Order of Administrative Management Agency in 1973.

The shapes of grid squares are rectangles of about one square kilometer. These grid squares are then divided in smaller grid squares with sides of 500 meter in the whole territory, and of 250 meter in the surrounding ordinance-designated city areas.

These grid squares used in the results are based on JGD 2000.

3. Method of Compilation

The method to compile the grid square statistics from the results of the 2010 Population Census was to allocate the tabulation data by the corresponding Basic Unit Blocks (BUBs are permanent geographical units and adopted in the 1990 Population Census for the first time, in order to use as basis of small area statistics and

basis of Enumeration Districts) to the grid squares.

The correspondence between BUBs and grid squares was automatically produced as follows, by using the Census Mapping System (CMS) which is a Geographic Information System developed by the Statistics Bureau.

- (1) In the case of a BUB is included in a grid square, the BUB is corresponded to the grid square (inclusion correspondence).
- (2) In the case of the size of BUB is less than 0.05km² and excluding the case of (1), the BUB is corresponded to some grid squares which include a part of the BUB, using the proportion of size in each grid squares (corresponding with proportion of size).
- (3) In the case of a BUB which has geometric information of housing or building in the BUB and excluding the case of (1) and (2), the BUB is corresponded to some grid squares which include a part of the BUB, using the information as weight (corresponding with housing or building).
- (4) In the case of a BUB which has information about the center (or representative points) of population distribution in the BUB and excluding the case of (1) - (3), the BUB is corresponded to some grid squares which include the center or representative points (corresponding with population distribution).
- (5) In the case of a BUB which has geometric information of establishments in the BUB and excluding the case of (1) - (4), the BUB is corresponded to some grid squares which include a part of the BUB,

using the information as weight (corresponding with establishment buildings).

- (6) In the case of a BUB and excluding the case of (1) - (5), the BUB is included in a grid square which includes the geometrical center of gravity (corresponding with center of gravity).

4. Disclosure control

When the figures in the grid squares statistics are very few, the figures are added up to neighboring grid squares.