Commitment of Brazilian municipalities with the Millennium Development Goals by a model of the Item Response Theory

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ABSTRACT

In 2000 the UN (United Nations) signed with its member countries the agreement of the millennium declaration, consisting of universal commitments to solve the world's major problems. For this, the objectives were set for the millennium development to be achieved until 2015. This study aimed to get an appointment score of 2,148 Brazilian municipalities that joined this datebook appointment, using the basic information from search database municipals (MUNIC) conducted in 2013 by the Brazilian Institute of Geography and Statistics. Estimates of these scores were obtained by the Item Response Theory (IRT), an excellent tool for the estimation of scores associated with latent variables. The IRT is based on responses given to factors (items) related to this variable of interest, and a model to extract the information contained in items on it. The scores obtainedwas based on 12 items and categorized into 4 levels, leading to the formation of 4 groups of municipalities. The municipalities that have joined to datebook are distributed in 5 geographical regions: North Region (9.7%), Northeast Region (35.9%), Southeast Region (26.5%), South Region (19.9%) and Central West Region (7.9%). The highest score was observed in 337 municipalities, distributed for the regions: North Region (17.2%), Northeast Region (15.7%), Southeast Region (16.5%), South Region (12.1 %) and Central West Region (20.1%). The lowest score was observed in 4 municipalities: Santo Antônio-RN, Santa Bárbara-MG, Mercedes-PR and Nova Lacerda-MT. The 4 items that more contributed to the estimation of the score were: *Combat HIV/AIDS, Malaria and other diseases* (item 6), *reducing child mortality* (item 4), *improve maternal health* (item 5) *and promote Gender equality and Empowerment women* (item 3). For the characterization of the municipalities is possible to assess that policies should be prioritized by municipal managers, mainly for municipalities in Group 1 (those less commitment), so that they can improve their commitment score. In group 1, there are few municipalities committed to the *Combat HIV/AIDS, malaria and other diseases and the promotion of gender equality and the empowerment of women.*

Keywords: Millennium goals, commitment score