Congruence Analysis Based on Population Census Data

MIKLÓS LAKATOS (*Hungarian Central Statistical Office, Hungary, Miklos.Lakatos@ksh.hu*)

I. Methodology

With respect to the education system, the compliance nomenclature was the „Register of Faculties, Specialties and Occupations" used also by the 2001 Population Census and the 2005 Microcensus. The Register is based on the Standard Classification of Educational Fields (KEOR) which was published by the HCSO in 2003. KEOR complies fully with the Fields of Education and Training (FET) of ISCED (International Standard Classification of Education) being in force since 1997. As regards occupations, FEOR-93 (Hungarian Standard Classification of Occupations) served as the basis for the compliance nomenclature. (The occupation survey of the 2001 Population Census and the 2005 Microcensus also applied this system). Though in terms of principles and structure, FEOR-93 follows ISCO-88 (International Standard Classification of Occupations), only the two-digit level complies fully with the international classification.

Consequently, the compliance nomenclature is based on two internationally harmonized classification systems: FEOR-93 and KEOR. Virtually, it has the following simple categories: (1) "complies"; (2) "partially complies"; (3) "does not comply".

In the history of modern censuses (from 1870), the 2001 Population Census was the one that included the fullest possible details regarding educational (professional) attainment. It embraced questions on school attendance; grammar, vocational training or other secondary school certificate; college or university degree; skills/vocational qualifications; denominations of finished faculty, major, minor, obtained qualification (occupation); and the academic year of acquiring degree, diploma or certificate. Every completed and not only the highest level of educational attainment had to be reported on (i.e. a person holding a university degree had to give also account of his/her completed secondary educational level). However, the Census did not include a question on completed non-formal courses (being outside the school system).

The dataset of the 2001 Population Census and the 2005 Microcensus involved in the congruence analysis and related to employed and unemployed individuals renders account only of the highest level of educational attainment. Thus, a person having a secondary school certificate relevant to his/her occupation and a college/university degree not close to that was classified in the "does not comply" category. Since the non-formal course qualifications were not surveyed, there may be cases, when the highest level of a person's educational attainment did not comply with his/her occupation, but the qualifications acquired after completion of a non-formal course would have complied with that.

Similarly, the occupation survey of the 2001 Population Census and the 2005 Microcensus was also one of the most thorough surveys in the history of population censuses. The 2001 Population Census gave account of the former occupation and employment data of not only the employed but also of those of the

unemployed and every inactive earner (i.e. pensioners or persons receiving childcare fee). However, only major occupations were surveyed. Thus, it is possible that a person was classified in the "does not comply" category in respect of the congruence analysis, though his/her other work activity could have complied with his/her qualifications.

II. Results

Concerning education and employment, detailed 2001 Population Census and 2005 Microcensus data are available. These provide a good basis for performing compliance analysis between occupational and population structures.

In 2001, nearly half a million people had a college/university degree within the employed population, whose majority were women (55%).The congruence level was also higher for women: 54.1 percent of employed women fully, 9.7 percent partially complied with the requirements. It can be stated that on the whole, nearly two-thirds of women performed such a work activity which fully or at least partially complied with their qualifications. In case of men, full congruence (37.4%) together with partial (10.9) congruence did not reach 50 percent. (The rate of incongruence was 51.7 percent) It must be emphasized that analysing the two sexes together, the majority of the population (56.8%; of which women accounted for 46.5% and men for 20.3%) had occupations fully or partially congruent with their qualifications.

The better congruence results of women is explained by inter alia the following reasons:

On the one hand, women – even for higher salaries – are less willing to change occupations due to their family ties. This change may imply new positions in which they can not use their original qualifications, but which require new skills from them to acquire (by taking part for example in course training).

On the other hand, women's role is greater in such (mainly service-type) branches (especially in education and health care/social services), where the acquired skills/qualification shall be applied to a greater extent than the average.

It may be concluded from age data, that the congruence level increases up to a certain age and reaches its maximum in the age-groups of 35–39 and 40–44 years. Above these, the level (with small fluctuations) basically remains the same. Only people aged over 65 (those who have been working for several years after the retirement age) show a slight decrease.

The number of persons completed secondary school is higher than that of individuals holding college/university degree, and their composition is even greater since this group includes people having grammar school, vocational training school or specialised secondary school certificates.

The number of employed persons of the formerly mentioned categories without leaders/managers exceeded 2 million in 2001.

The composition of the employees completed secondary education by gender doesn't correspond to that of people having university/college degree. Majority of this latter group (56.9%) are men.

The congruence level is higher among men ("complies" and "partially complies" categories exceed 30 percent), while only a little bit more than one-fourth of women can be classified accordingly.

The congruence level by age shows a negative tendency. Two-fifths of the youngest people (aged 15–19 years), slightly one-third of the age group of 20–39 years and less than one-fourth of individuals aged 40–59 are classified as "congruent" or "partially congruent".

Following the regime change, the forceful economic transformation had an impact on the employability of people completed secondary education in their professions. For example, owing to cut-backs, a considerable proportion of employees working in heavy industry were forced to give up their original profession.

Between 2001 and 2005 the number of persons with college/university degree grew by 130 thousand. The proportion of the employees classified as "fully congruent" decreased by 8 percentage points, while that of the "partially congruent" ones by 1 percentage point. Thus, majority of employees became „incongruent". (This change is significant even if we consider the sampling error of the 2005 Microcensus.)

It can be also concluded that the difference still prevails in favour of women: 40% of men and 53% of women worked in positions that fully or partially comply with their qualifications.