

Opponent's evaluation of Nailya Verdiyeva's diploma thesis „Population forecast for the Republic of Azerbaijan for the period 2009-2050“

The diploma thesis of Nailya Verdiyeva „Population forecast for the Republic of Azerbaijan for the period 2009-2050“ consists of 84 pages of text and 20 pages of appendixes. The text is organized in five numerated chapters including the introduction. It is completed by the lists of abbreviations, tables and figures, and by the conclusion plus the above mentioned appendixes.

The diploma thesis is thematically focused on forecasting population development of the Republic of Azerbaijan. This topic covers the overview of population forecasting methodology, recent demographic development of the country, the estimation of selected indicators, the forecast of projection model parameters and their application producing the aggregated forecast of size and sex and age structure of population in question. The work is finishing by presentation for the obtained results. The core problem besides estimation of the parameters and application of the cohort component model was represented by work with the initial data available from relatively weak statistical system with many subjective as well as objective doubts regarding reliability of data employed.

N. Verdiyeva approached the submitted diploma thesis from the methodological side. Defining basic concepts she directly moved to delimitation of the population forecasting process and cohort component model specification. She described the principles on which the model is built and defined the major relations between dependent and independent variables. When specifying the main mathematical relations, the author forgot to specify two variables: T and sex_ratio used in the formulas. A proper quotation was also forgotten by the author in the case of the adopted description of the projection model.

Discussing particular methods of parameters estimation the author added description of the approach and a brief discussion on methods used not only for direct estimation of the parameters but also for redistribution of fertility and mortality aggregates by age. In this respect it is worth to mention that description of these redistribution methods is not a part of forecasting methods. This is why their presentation should be probably separated from the tool of forecasting themselves.

The part of the submitted diploma thesis devoted in particular to the forecasting population development in a specific conditions of Azerbaijan is thematically compact and relatively well saturated by necessary information. The problems with reliability of some parts of data needed were successfully fixed using suitable models for their interpolation and/or extrapolation. The results of modelling were used in analyses as well as in the stage of forecasting parameters values.

The author solved all the basic practical tasks related to the production of the forecast correctly. The existing gaps are more in presentation of the results than in forecasting itself. For example the author forgot to present some elementary data like the stock numbers (total population size and sizes of main population categories) close to the table 2. Similar situation appeared in presentation of results when comparison of the natural growth with migration gains following the figure 26 was omitted. A shortage of time available for finalization of the thesis caused by higher demand of capacities for relatively extensive calculations is mirrored in brief and partially superficial comments to the assumptions and even more brief discussion of the final results. Solitaire graphics on the pages 72-74 look rather strange whatever they are interesting and informative.

From the formal point of view, the critical comments should be addressed especially to the lower culture of tables which have reserves in the layout. They are mostly too wide, too long and improperly divided into

parts whenever it is necessary. The bibliography is rather extensive and incorporates many titles which are not quoted in the text.

Regardless these critical comments, the diploma thesis of Nailya Verdiyeva can be evaluated positively. The author proved through the results of her work that she is well acquainted with the topic and able to participate actively in the process of population forecasting and related activities. Therefore I recommend the diploma thesis of N. Verdiyeva for defense and propose to rate it as very good, taking into account the result of its presentation and defense.

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opponent