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ROMANIAN PRE-UNIVERSITY SCHOOL POPULATION PROGNOSIS – DECISIONAL GROUNDS FOR EDUCATIONAL MANAGERS

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Abstract

Sustainable development and the quality of life of citizens from all countries are strongly connected with the quality of education carried out in each country, thus, national educational systems having vital importance in the context of major economical, technological and globalization challenges faced in the 21st century. In post-December Romania, due to decreasing birth rate and increasing number of emigrated families, the number of students from pre-university level has registered a dramatic drop. Lack or inefficiency of demographical policies for birth rate stimulation, wonder of foreign countries, inconsistency of economic measures to support small and medium-sized companies, sometimes even erroneous politics in the area of school organization (peaking with the dissolution of professional education at the beginning of the decade), together with a series of other causes have contributed to the alarming decrease in the number of students, more accurately by over 1 million from 1995 to 2018.

If the trend continues likewise, unless there are shortly implemented policies meant to mend the decline, by 2030 there will be less than two million students, by 2040 under one and a half million and by 2050 there will be even less that the symbolic number of one million students in Romanian pre-university education. These are discouraging perspectives if we look back at 1995 when pre-university educational system in Romania registered about 3700000 students.

***Keywords**: education, pre-university level, sustainable development, prognosis, educational politics, demography policy*

1. Introduction

If in normal times the reference to education as a national priority is not appropriately perceived at the operational level, resembling more a slogan with a high degree of abstractisation, then in periods of crisis, not especially this one generated by COVID 19, we realize the importance of education, at all its levels, in humans' lives, in the existence of a people or for the entire humanity. Obviously, when we have to overcome certain crisis situations, this is done with less human and economic costs if the population has a high degree of education and professional training. The resources allocated to different projects are better managed if the human resources involved have a high education and professional level. In the context of the information explosion and communication technologies, increasing work force migration, the mission of education systems is much more important, and graduates

should be able to quickly adapt to working, social and cultural conditions in heterogeneous areas.

If we look at the level of the European Union, then from a political point of view, the majority of countries recognize that education systems have to be a priority, specifically, but this does not always happen, and if it does, it is not the same in all areas.

In Romania, for 30 years, during which there were 6-7 electoral cycles, Romanian political actors have declared education a national priority. When it came to budget allocations, things were not in accordance with political statements; with very few exceptions, the share of expenses for education compared to GDP was around 3.5%. Thus, although in the National Education Law of 2011 the level of expenditures from GDP is 6%, the real level of allocations is far from the declared one.

If in „*Romanian education beyond electoral cycles*" [3, 2019], analyzing the budget allocations over a long period of time we came to the conclusion that *Romanian education – a national priority* is still a valid and strong electoral slogan for future electoral cycles, let's try to see how things look if we refer to the number of students of pre-university education.

2. Degree of problem investigation at present, purpose of research

Along with systemic issues, the reduction in the number of pre-school education in Romania is evident from year to year, not only for educational analysts, educational researchers or those who work in the educational system, but also for the less competent ones. The situation makes us think about what will happen in 10, 20 or 30 years. These concerns are not only correct, but also mandatory, both for school managers at the micro level, as well as for the people responsible for developing educational policies in Romania. Projects related to school infrastructure, school schedules, educational indicators, and educational human resources should all be based on answers regarding the future evolution of the school population.

The UN General Assembly, reunited in New York in 2015 adopted a historical document, the 2030 Agenda for Sustainable Development, which aims for a brighter future for us and, foremost, for our successors. The Agenda was also adopted by the European Union and then it was adapted and contextualised for our country as well, becoming the Romanian National Strategy for Sustainable Development 2030 [5, 2018]. According to these documents, one of the biggest challenges the European Union faces, including Romania, is the demographic changes, especially the aging of population, decrease in the number of young people and a low birth rate. Migration flows are a solution for some areas to increase the number of young people; they only fix it in the short term and do not solve the problem of birth rate and aging.

Obviously, demographic problems find an echo in educational systems. Low birth rate and migration strongly affect the pre-university school population in Romania. Although the number of students is constantly decreasing, "the quality of teaching is far from what we want" [5, 2018]. According to the same document, in rural areas 38% of schools have outdoor toilets, over 25% do not have central heating, 20% do not have a health authorisation, 17% do not have authorised water source and only 60% of schools have their own library [5, 2018].

Educational institutions could increase the effectiveness of their activity and the level of performance by decentralizing the educational system, consolidating their autonomy and the ability to manage financial and human resources [4, 2007]. At the level of educational units, in areas where the offer is diverse, an increase in the number of students and, implicitly, that of classrooms would be associated with the management, which improves the quality of the educational process at the respective entities. From this point of view, we could deal with an increase in the school population at local level due to the so-called "migration" between different regions/units, although overall it is decreasing.

Despite the fact that the preservation or even increase in the school population in an educational unit could be achieved through efficient management, the solutions for a real increase in the number of pre-university school population are not a point of the management plan; they have to be found at the macro level and they consist of demographic, economic and social policies. These policies must be adopted and implemented together. A. Marga thinks that "in Romania today, it is not money, which primarily is missing, but a refrain that delays the sounds of change. First of all, there are not enough new ideas and solutions in the organisation which would lead ahead". The author says that we have to go back to rigorous and innovative thinking and that there is no other solution than a whole change of the system [7, 2019].

An important title in our opinion is *Romania's development strategy for the following 20 years* compiled by the Romanian Academy [1, 2015], which looks at all important areas of Romanian life and which places school and education as top concern. From the highest scientific level of the country, they provide decision makers with seven programs to remedy the problems of Romanian education and to lead to a well performing educational system, adapted to the preoccupation of the human being in the 21st century. Education, teaching, life-long learning are key ingredients for the successful recipe of sustainable development.

The purpose of our research is exactly that of analysing Romanian pre-university school population. Identifying trends in the evolution of the number of students in pre-university education, the causes of these developments, compiling a multi-decade prognosis for the number of students, suggesting solutions to increase the number of students, these are all specific purposes of our research endeavour.

3. Methods and materials applied

In the specialty literature we can find various definitions for research, one of which describes it as "an activity capable of determining comprehension, intuition and knowledge obtained through thorough perception and systemic observation of a subject/theme, with the purpose of the researcher's perception validation" [2, 2011]. Generally speaking, research is seen as "an active and systematic process of discovering, interpreting and revising facts, events, behaviours and theories, or carrying out practical applications of such facts, laws or theories" [2, 2011].

Methodology, as a research system, is the one that teaches us how to use methods, following the rigors of guidelines appropriate to the researched subject [8, 2013]. It is the how-how way through which one can reach the purpose, generally a research purpose, particularly. Research

methodology provides the rules, norms, methods, techniques and practices through which we know "How to do" and "How to apply" something we know or have learnt, how to go from a vague idea, a hypothesis to a solution, a generalisation or a scientific theory [9, 2006].

A necessary condition for this scientific approach is the need to have a picture of pre-university school population and to identify solutions that could lead to an increase in the number of students in the pre-university educational system.

Keeping in mind the domain specificity, the research methodology used was built from identifying, studying and systematising the specialty literature and legislation concerning the organization of pre-university education, starting with accessing and operating the metadata regarding the evolution of the number of students over a long period of time, continuing with the regression modelling of the phenomenon and ending with the compilation of the prognosis and the interpretation of the result.

This research used a variety of strategies, combining inductive methodological strategy, based on qualitative research methods and deductive methodological strategy. Research methods such as documenting, method of document analysis, statistical observation, statistical operation, analogy, regression analysis, prediction method, comparison, analysis, synthesis were used. Documenting was used to provide an overview on how educational institutions are organised and function, as well as on the pre-university education school population. To highlight the value, validity and theoretical and practical importance of the information we turned to statistics, mainly econometric modelling using Eviews application.

Econometrics, similar to all generic names of metric sciences, is the science which quantitatively measures the researched phenomena mainly in terms of quality. Direct study of objective reality can often mean a difficult task due to the emergence of insurmountable obstacles. In practice, there is an indirect research path, simplified and abstract, analysing more accurately the phenomena and objects that resemble those that are the subject of this particular study. This research methodology is called modelling and is an instrument of scientific analysis, which has as object building representations called models, with the help of which a better comprehension and a deeper scientific knowledge are obtained.

Econometric models operate with variables, equations, parameters and data series. In our case the endogenous, dependable variable is the number of students in pre-university education, while the exogenous variable is time. The data series are actually chronological series which register the values of school population for each year. The evolution of the number of students is a linear one and, because of that, the equation of the model is a linear regression, the parameters of which will be determined using the method of the smallest squares with Eviews application. Using the model obtained and validated in statistical tests, the prognosis of the number of students is compiled for a few future moments and an interpretation is carried out followed by some suggestions for improving the situation.

Despite the complexity of the research, it cannot exhaust all theoretical – methodological and applicative aspects of the targeted area. Our efforts can be continued, in particular, by including some exogenous variables into the model, such as birth rate and family migration rate. "The most important thing is not to stop researching and asking questions" (Albert Einstein).

4. Results and discussions

4.1. Number of pre-university education students in Romania

4.1.1. Number of students based on residentship areas

After convenient operation of the data obtained by consulting the INS – tempo-online platform, refering to the evolution of the number of students, we obtained the following situation form (Table 1):

Table 1. Number of students based on residentship areas, enrolled in Romanian pre-university education between 1995-2018

Year	Students enrolled in pre-university education		
	TOTAL	Urban	Rural
1995	3.669.248	2.561.602	1.107.646
1996	3.674.597	2.548.658	1.125.939
1997	3.659.208	2.508.423	1.150.785
1998	3.598.666	2.429.672	1.168.994
1999	3.509.449	2.334.899	1.174.550
2000	3.421.091	2.247.487	1.173.604
2001	3.356.231	2.194.355	1.161.876
2002	3.270.786	2.132.560	1.138.226
2003	3.214.999	2.073.428	1.141.571
2004	3.108.634	1.998.348	1.110.286
2005	2.996.029	1.959.876	1.036.153
2006	2.911.213	1.912.951	998.262
2007	2.846.904	1.874.081	972.823
2008	2.781.039	1.828.214	952.825
2009	2.735.424	1.804.326	931.098
2010	2.682.489	1.772.478	910.011
2011	2.610.022	1.737.248	872.774
2012	2.688.590	1.775.345	913.245
2013	2.649.040	1.752.634	896.406
2014	2.615.722	1.741.983	873.739
2015	2.553.861	1.706.729	847.132
2016	2.524.399	1.701.604	822.795
2017	2.497.768	1.699.650	798.118
2018	2.466.269	1.693.555	772.714
Average	3.001.737	1.999.587,75	1.002.148,83

Source: [6, 2020]

The decreasing trends can be more suggestively highlighted in a graphic manner as follows:

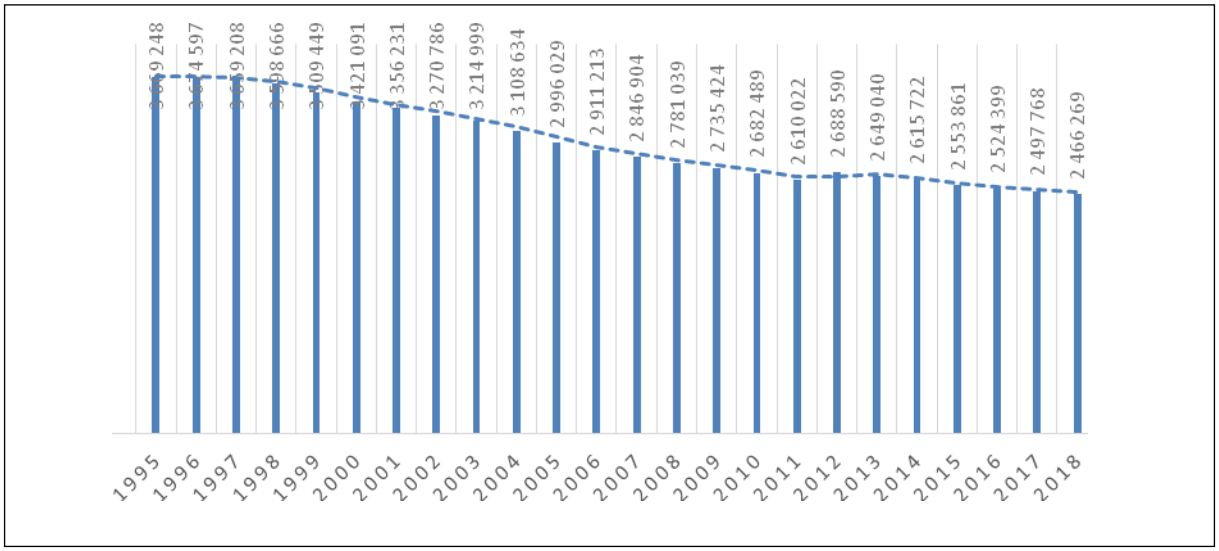

Figure 1. Evolution of the number of students enrolled in Romanian pre-university education in 1995-2018

In the analyzed period of time we notice a continuous decrease in the number of students, less by 1202979 students in 2018 compared to 1995, which means an average annual decrease of about 50124 students.

By residentship areas, the following graphic approach could be relevant:

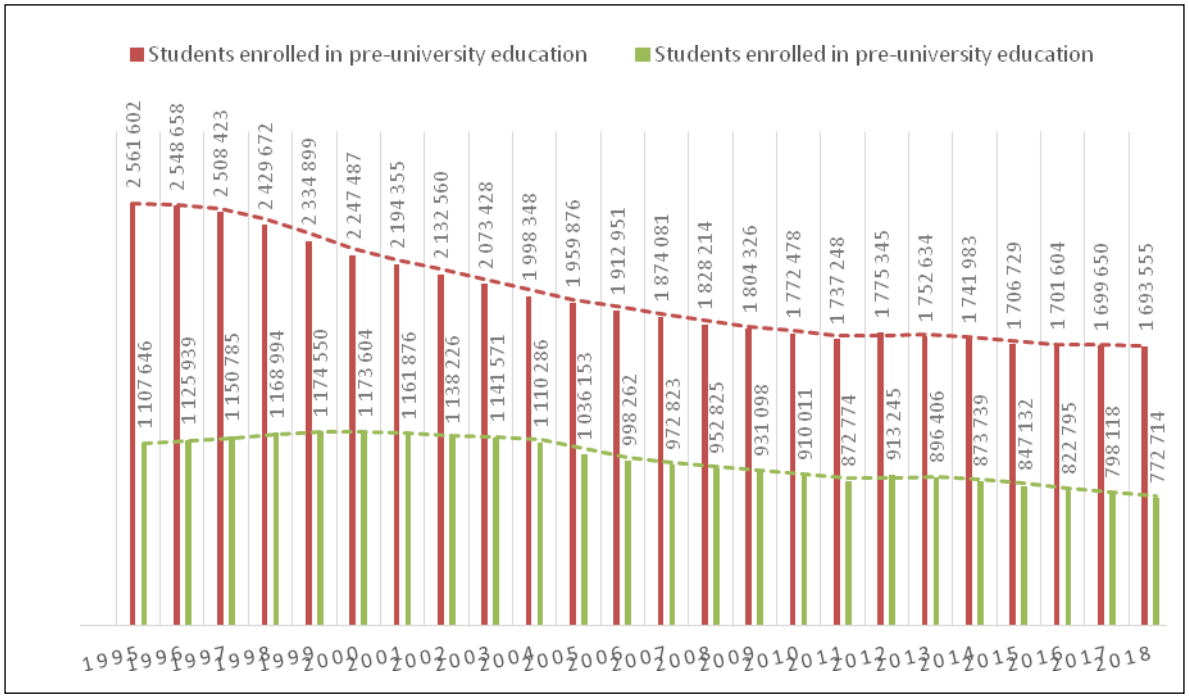

Figure 2. Evolution of the number of students, based on residentship areas, enrolled in Romanian pre-university education in 1995-2018

If we take into account the residentship areas, then the number of urban area students dropped in 2018 compared to 1995 by 868047 students, meaning an average annual decrease of about 36169 students. In rural areas, in 2018 there were 334932 fewer students enrolled than in

1995, an average annual drop for the students enrolled in rural areas being around 13955, which means a 2.5 smaller average annual drop compared to the one from the urban areas. If in urban areas the decreasing trend is obvious, for rural areas there is even a frail increasing tendency between 1995 and 2000. After this the drop is characteristic, without exception, for every year.

After processing the data highlighting the annual decrease rates regarding the number of students, we obtain the following situation:

Table 2. Rate of increase in the number of students, based on residentship, enrolled in Romanian pre-university education in the period 1995-2018

Year	Students enrolled in pre-university education					
	Total		Urban		Rural	
	Annual increase rhythm with fixed basis in 1995	Annual increase rhythm with chain basis	Annual increase rhythm with fixed basis in 1995	Annual increase rhythm with chain basis	Annual increase rhythm with fixed basis in 1995	Annual increase rhythm with chain basis
1	2	3	4	5	6	7
1995						
1996	0,15%	0,15%	-0,51%	-0,51%	1,65%	1,65%
1997	-0,27%	-0,42%	-2,08%	-1,58%	3,89%	2,21%
1998	-1,92%	-1,65%	-5,15%	-3,14%	5,54%	1,58%
1999	-4,36%	-2,48%	-8,85%	-3,90%	6,04%	0,48%
2000	-6,76%	-2,52%	-12,26%	-3,74%	5,95%	-0,08%
2001	-8,53%	-1,90%	-14,34%	-2,36%	4,90%	-1,00%
2002	-10,86%	-2,55%	-16,75%	-2,82%	2,76%	-2,04%
2003	-12,38%	-1,71%	-19,06%	-2,77%	3,06%	0,29%
2004	-15,28%	-3,31%	-21,99%	-3,62%	0,24%	-2,74%
2005	-18,35%	-3,62%	-23,49%	-1,93%	-6,45%	-6,68%
2006	-20,66%	-2,83%	-25,32%	-2,39%	-9,88%	-3,66%
2007	-22,41%	-2,21%	-26,84%	-2,03%	-12,17%	-2,55%
2008	-24,21%	-2,31%	-28,63%	-2,45%	-13,98%	-2,06%
2009	-25,45%	-1,64%	-29,56%	-1,31%	-15,94%	-2,28%
2010	-26,89%	-1,94%	-30,81%	-1,77%	-17,84%	-2,26%
2011	-28,87%	-2,70%	-32,18%	-1,99%	-21,20%	-4,09%
2012	-26,73%	3,01%	-30,69%	2,19%	-17,55%	4,64%
2013	-27,80%	-1,47%	-31,58%	-1,28%	-19,07%	-1,84%
2014	-28,71%	-1,26%	-32,00%	-0,61%	-21,12%	-2,53%

1	2	3	4	5	6	7
2015	-30,40%	-2,36%	-33,37%	-2,02%	-23,52%	-3,05%
2016	-31,20%	-1,15%	-33,57%	-0,30%	-25,72%	-2,87%
2017	-31,93%	-1,05%	-33,65%	-0,11%	-27,94%	-3,00%
2018	-32,79%	-1,26%	-33,89%	-0,36%	-30,24%	-3,18%
Average	-18,98%	-1,70%	-22,89%	-1,77%	-9,94%	-1,52%

Source: own operation depending on the number of students obtained in [6, 2020]

The total number of students dropped by 32.79% in 2018 compared to 1995. One can notice that the total number of enrolled students decreased on average by 18.98% compared to the value in the reference year, while the average decrease percentage was 22.89% in urban areas, and 9.94% in rural areas. Analyzing the values of the chain growth rates we noticed that the number of students from year to year decreases on average by 1.70% at the entire pre-university level, more exactly by 1.77% in urban areas and somewhat smaller, by 1.52%, in rural areas.

One might find it interesting to observe the graphic representation of the chain (mobile) increase rates:

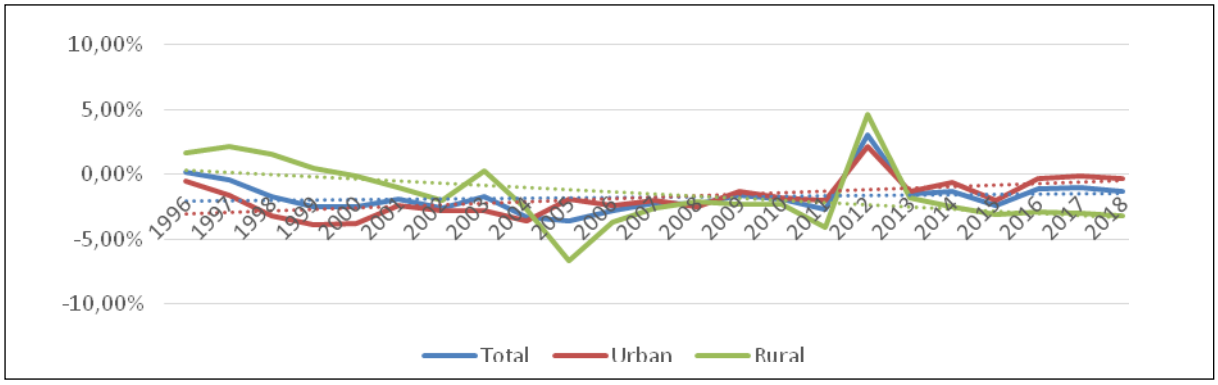

Figure 3. Annual chain increase rate of the number of students enrolled in Romanian pre-university education, based on residentship areas, in the period 1995-2018

Regarding the total number of students, the increase level is practically negative, with the exception of 1996 and 2012. In 2012 it is not only positive, but the same for both residentship areas. The explanation for this 2012 exclusion can be found in the introduction of the preparatory class to the primary school program for the 2012-2013 study year. Practically, a large number of students were transferred from pre-school to primary school level.

For the urban area, with the exception of 2012, the increase rate is negative for all analyzed years, compared to the rural area where this rate was positive between 1996 and 1999. For this period, it could be explained by the fact that some Romanians moved together with their families in the countryside, possibly due to difficult living conditions, since in those years Romania experienced an accelerated inflation.

Analyzing the trends of these three linear cases, we noticed that in terms of the total number there is a slow increase: the line for urban areas having a bigger slope, but continuing to be

under 0. This means that the rates drop, in absolute value, thus the number of students enrolled overall and in urban area has a tendency to decrease from year to year, but by smaller values. Whereas, for the rural area, the linear trend indicates an accentuated decrease, the values being under 0, which means that the number of students in rural areas increasingly drops each year. In other words, in rural area, the annual decrease trend is faster than in urban area or overall. This became more obvious after 2012.

4.1.2. The number of students by levels of education

The National Education Law of 2011 defines the levels of the national system of pre-university education as follows: early education with ante-preschool and preschool levels; primary school; secondary school including inferior secondary school or gimnasium; superior secondary school, including high school, vocational school; non-university tertiary school, which involves post high school education.

Next, we examined the number of students in pre-university education, ante preschool and preschool were not included. After processing the data from the same INS-Tempo online platform, our aim was to analyze the number of students by education levels, as presented in Table 3 and Figure 4.

Table 3. Number of students enrolled in Romanian pre-university education in the period 1995-2018, by levels

Year	Total	Primary	Secondary	High school	Vocational school	Post high school and craftsmen
1	2	3	4	5	6	7
1995	3.669.248	1.391.951	1.149.994	787.211	285.450	54.642
1996	3.674.597	1.405.308	1.140.923	792.788	262.057	73.521
1997	3.659.208	1.373.079	1.186.687	765.903	247.239	86.300
1998	3.598.666	1.284.507	1.272.423	718.017	227.585	96.134
1999	3.509.449	1.189.058	1.309.081	694.376	222.234	94.700
2000	3.421.091	1.090.172	1.321.333	687.919	239.550	82.117
2001	3.356.231	1.028.697	1.291.839	710.663	252.347	72.685
2002	3.270.786	990.807	1.207.505	740.404	270.215	61.855
2003	3.214.999	1.005.533	1.116.693	758.917	279.124	54.732
2004	3.108.634	970.295	1.026.309	773.843	289.494	48.693
2005	2.996.029	939.330	961.231	767.439	284.412	43.617
2006	2.911.213	919.439	922.769	780.925	250.383	37.697
2007	2.846.904	865.175	924.518	791.348	220.335	45.528
2008	2.781.039	859.169	893.166	784.361	189.254	55.089
2009	2.735.424	845.679	873.997	837.728	115.445	62.575

1	2	3	4	5	6	7
2010	2.682.489	828.853	862.588	866.543	54.538	69.967
2011	2.610.022	810.126	819.280	888.768	12.382	79.466
2012	2.688.590	931.951	812.241	831.810	19.734	92.854
2013	2.649.040	942.747	800.507	776.616	26.493	102.677
2014	2.615.722	947.205	785.100	727.072	50.788	105.557
2015	2.553.861	939.147	772.941	673.615	68.682	99.476
2016	2.524.399	928.245	767.216	650.832	84.390	93.716
2017	2.497.768	947.931	730.037	637.706	90.205	91.889
2018	2.466.269	931.419	722.269	629.755	90.451	92.375
Average	3.001.737	1.015.243	986.277	753.107	172.199	74.910,92

Source: [6, 2020]

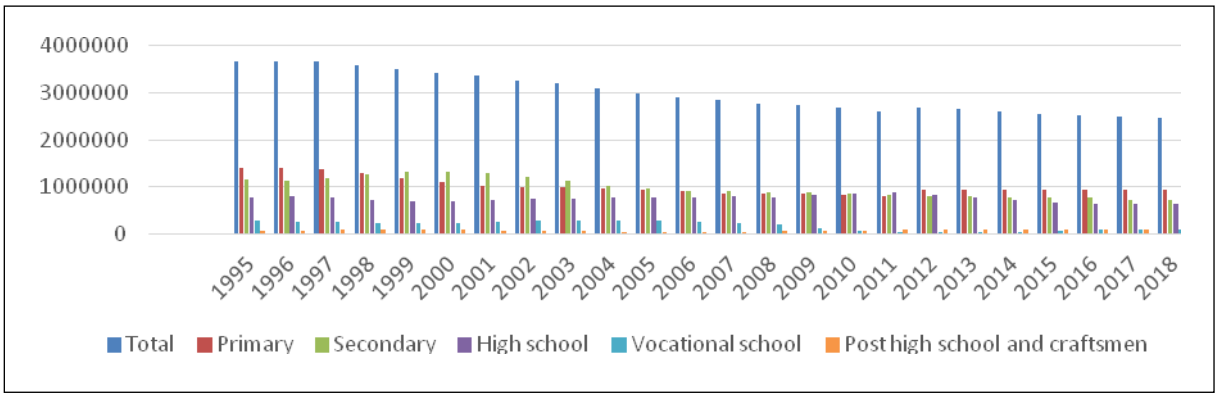

Figure 4. Number of students enrolled in Romanian pre-university education in the period 1995 - 2018, by levels

Special attention should be given to highlighting the collapse in the number of students in vocational schools. Since 2005, the number of students at this education level has been steadily decreasing, and in 2011 this indicator almost became insignificant when an absolute minimum of 12,382 students was registered. These students were practically in their final years, without elementary classes for further vocational training. Since 2012 (with the harm already done) there was a new increase in the number of students, due to the re-introduction of vocational classes in school organisational plans. At the same time, due to the use of surveillance cameras, both for the National Evaluation and for the Baccalaureate Exam, there was a drop in the number of students admitted to the ninth grade in high school, as well as a significant reduction in the number of high school graduates who managed to pass the „maturity exam". In this context, the foundation was laid for enhancing vocational education, although its collapse was due to some inexplicable school organisational plans. Obviously, this collapse led to a significant reduction in the number of qualified teachers from vocational schools, most of whom left the system, and a small part was absorbed by technological high schools. We do not know if anyone quantified the impact of the mentioned collapse on the national economy, but there were catastrophic consequences for teachers which are still felt.

4.2. Multi-decade prognosis of the number of students

To determine, using Eviews, the estimation equation for the number of students, we have used instead of the year series the values corresponding to the deviation from the base year, 1995:

Table 4. Year series and the number of students enrolled in Romanian pre-university education in the period 1995-2018

Years (t_i)	No_students (y_i)	Years (t_i)	No_students (y_i)
0	3.669.248	12	2.846.904
1	3.674.597	13	2.781.039
2	3.659.208	14	2.735.424
3	3.598.666	15	2.682.489
4	3.509.449	16	2.610.022
5	3.421.091	17	2.688.590
6	3.356.231	18	2.649.040
7	3.270.786	19	2.615.722
8	3.214.999	20	2.553.861
9	3.108.634	21	2.524.399
10	2.996.029	22	2.497.768
11	2.911.213	23	2.466.269

Source: [6, 2020]

Creating a group between two series will lead us to the following scatter diagram:

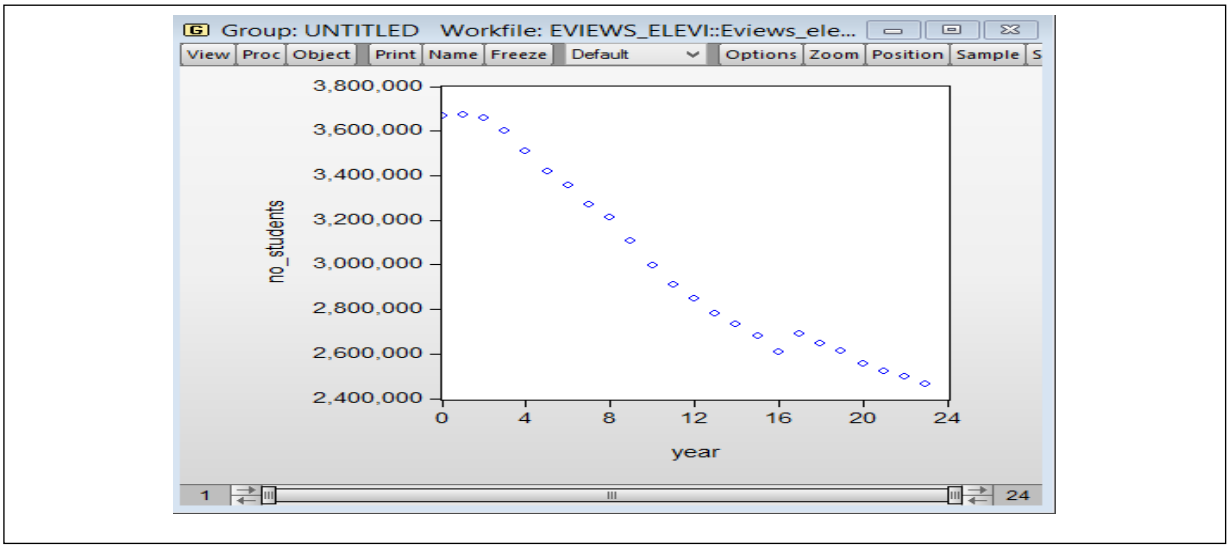

Figure 5. Scatter diagram in Eviews regarding the evolution of the number of students enrolled in Romanian pre-university education in the period 1995-2018

According to the chart, we can assume that, annually, we have a linear regression of the number of students, in compliance with the model:

$$\widehat{Y_t} = a + bt \quad (1)$$

We estimated the parameters of the above regression, meaning we determine the $\mathbf{a_1}$ estimations for **a** and $\mathbf{b_1}$ for **b.**

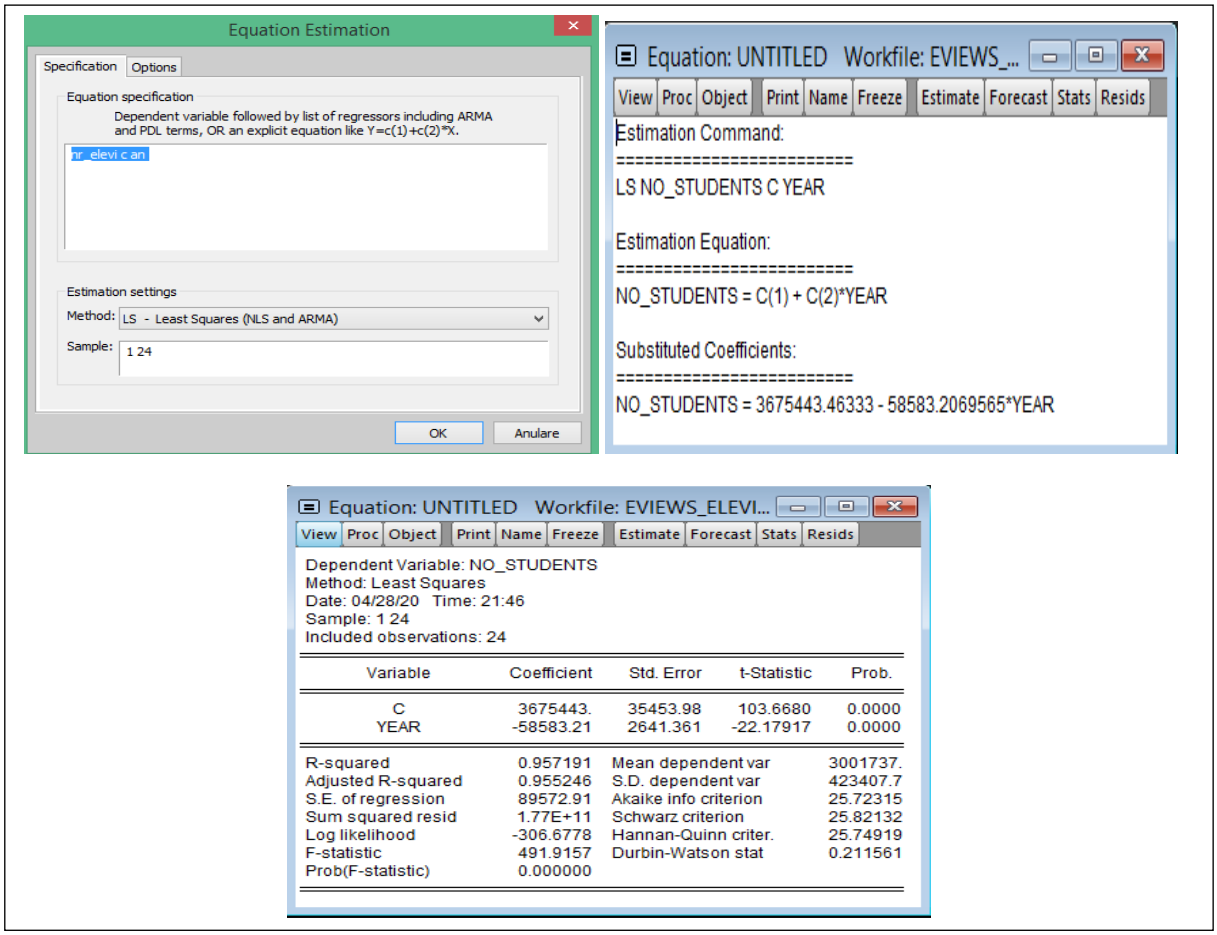

Figure 6. Linear regression based on time regarding the evolution of the number of students enrolled in Romanian pre-university education in the period 1995-2018

Thus, the estimated values are a_1=3675443.46 and b_1= - 58583.21. Therefore, the number of students from time t would be:

$$\hat{Y}_t = 3675443{,}46 - 58583{,}21 \times t \quad (2)$$

We estimated reliability intervals for regression coefficients and also we analyzed the most favorable and most unfavorable case.

The way according to which the reliance level of an estimator is determined is known:

$$\beta \in \left[b_{calculated} - St_{(\alpha;n-k)} \mathbf{x}\, err_{standard}\, , b_{calculated} + St_{(\alpha;n-k)} \times err_{standard} \right] \quad (3)$$

which means that β partains to the probability interval of 1-α.

To determine the critical distribution value tStudent, we used the T.INV.2T(0,05;22) Excel function; we obtained the value 2.073873068 at a level of significance 0.05.

Replacing in **(**3**)**, we obtained:

Table 5. Reliability intervals for the estimators of the regression model

Calculated value for a1	Standard error for a1	Calculated value for b1	Standard error for b1	Inferior reliability limit	Superior reliability limit
3675443,46	35453,98	-58583,21	2641,36		
			Estimation β1	3601916,41	3748970,51
			Estimation β2	-64061,06	-53105,36

We can state that with a 95% probability $a \in [3601916,41; 3748970,51]$ and $b \in [-64061,06; -53105,36]$.

Thus, for the most favorable case, we can take into account the equation:

$$\hat{Y}_t = 3748970,51 - 53105,36 \times t \quad (4)$$

The regression for the most pessimistic case, the most unfavorable, has the form:

$$\hat{Y}_t = 3601916,41 - 64061,06 \times t \quad (5)$$

If we group the results obtained from models (2), (4) and (5) we get the following table:

Table 6. Multi-decade prognosis of the number of students enrolled in Romanian pre-university education

Year	Deviation from 1995 (t)	Prognosis of the number of students in pre-university education ($\hat{Y}_t$)		
		Moderate case – Model (2)	Optimistic case – Model (4)	Pessimistic case – Model (5)
2030	35	1.625.031	1.890.283	1.359.779
2040	45	1.039.199	1.359.229	719.169
2050	55	453.367	828.176	78.558

Thus, taking into account the results obtained in the moderate case, in 2030 the number of students in Romanian pre-university education is likely to be less than 2000000, by 2040 it will be slightly lower than 1000000, and by 2050 it will be much lower than the symbolic threshold of 1000000. Even for the optimistic case, the statements from the previous sentence remain valid, while in the pessimistic case the situation would be entirely catastrophic.

5. Conclusions

According to this study, we found that at least for vocational school education, it never was a priority for the high level responsible officials, but also that there are certain imbalances both at the education system level and at the Romanian economy level, which will be difficult to surpass.

After modeling the current study, we found that the number of students decreases by about half a million every ten years and that by 2050 there will be fewer than 1000000 students or even fewer than 500000 according to a pessimistic scenario, while in 1995 there were about 3700000 students in pre-university education. We emphasize the fact that these must be seen in the context in which, starting with 2012 a new class has been introduced in primary school; more exactly, due to the introduction of the preparatory class in primary school, about 100000 children were transferred from preschool institutions.

In our opinion, a more detailed and thorough analysis would imply by adding to the model other factors such as birth rate, migration of families rate, early abandonment rate etc. Certainly, these factors are significant for the number of students enrolled in pre-university education.

The alarming decline in the number of students, illustrated by the fact that the estimates for 2050 is a 5-7 times decrease compared to the number of students in 1995, can only be stopped by high-level policies in the demographic, economic and social areas.

We believe that responsible factors could radicalize these policies, which means that by encouraging the calibration of children's allowances, as well as through active measures to support families returning from abroad (installation bonuses, non-refundable amounts for creating family businesses etc.) could have immediate consequences. These measures as well as measures to create a healthy competitive economic environment and support small and medium sized companies can also lead to the prevention of emigration phenomenon.

At the same time, it is necessary to find solutions to increase the attractiveness of teaching career, so that a part of valuable graduates would be attracted to this field. Romania has its own model to follow, that of pedagogical high schools between the 50s-80s of the last century, whose graduates performed state modernization, mainly by raising population literacy in rural areas.

Due to the fact that we are dealing with an extensive, high inertia complex system, we believe that it is mandatory to develop a set of measures to stop the accelerated decrease of the number of students and then to impose an increasing trend, so this set should be regulated and implemented as soon as possible. If this happens, the slogan "education is a national priority" *will surely lead to real accomplishments. If not, then it will simply remain a slogan valid during confrontations in future electoral cycles, and Romanian population will be equally vulnerable, disoriented and incapable of action in future crises it will encounter.*

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Rezumat

Dezvoltarea durabilă, sustenabilă, calitatea vieții cetățenilor oricărei țări sunt în strânsă dependență cu calitatea învățământului ce se desfășoară în țara respectivă, sistemele naționale de învățământ căpătând astfel importanțe vitale în contextul marilor provocări economice, tehnologice și de globalizare ale secolului XXI. În România post-decembristă, din cauza reducerii natalității și a creșterii emigrației familiilor, numărul elevilor din învățământul preuniversitar cunoaște o scădere dramatică. Lipsa sau ineficiența politicilor demografice de stimulare a natalității, mirajul străinătății, inconsecvența măsurilor economice pentru sprijinirea firmelor mici și mijlocii, uneori politici eronate în domeniul planurilor de școlarizare, culminând cu desființarea învățământului profesional la începutul deceniului, cumulate cu o serie de alte cauze, au contribuit la scăderea alarmantă a numărului de elevi, respectiv cu peste 1 milion din 1995 până în 2018.

Dacă tendințele se vor păstra, dacă nu vor fi implementate în scurt timp politici menite să contracareze declinul, atunci în 2030 vom avea sub 2.000.000 de elevi, în 2040 sub 1.500.000 iar în 2050 vom fi scăzut, poate cu mult, sub numărul simbolic de 1.000.000 de elevi în învățământul preuniversitar din România. Perspective descurajante, mai ales dacă le raportăm la anul 1995, când sistemul de învățământ preuniversitar din România număra cca 3.700.000 elevi.

***Cuvinte-cheie**: educație, învățământ preuniversitar, dezvoltare sustenabilă, prognoză, politici educaționale, politici demografice*

Аннотация

Устойчивое развитие, качество жизни граждан любой страны зависят от уровня образования страны. Соответственно, национальные системы образования, в контексте значимых экономических, технологических и глобализационных вызовов XXI века, приобретают глобальное значение. По причинам снижения рождаемости и увеличения эмиграций семей в пост-декабрьской Румынии наблюдается драматическое сокращение количества учеников в доуниверситетском образовании. Отсутствие или неэффективность демографической политики, направленной на стимулирование рождаемости; мираж иностранных земель; несостоятельность экономических мер по поддержанию малого и среднего бизнеса; иногда ошибочная политика в области школьного планирования, которая привела к отмене профессионального образования в начале десятилетия, в сочетании с рядом других причин, поспособствовали тревожному сокращению числа учеников, более чем на 1 миллион в период с 1995 по 2018 годы.

Если эти тенденции сохранятся, если в ближайшее время не будет внедрена соответствующая политика по противодействию снижению, то к 2030 году у нас будет менее 2000000 учеников, к 2040 году - менее 1500000, а к 2050 году в доуниверситетском образовании Румынии возможен значительный спад количества ниже символического числа в 1000000 учеников. Обескураживающие перспективы, особенно если провести сравнение с 1995 годом, когда система довузовского образования в Румынии насчитывала около 3700000 учеников.

***Ключевые слова**: образование, довузовское образование, устойчивое развитие, прогноз, образовательная политика, демографическая политика*

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