



STATISTICAL ANALYSIS OF STUDENTS' PERFORMANCE ON THE BACCALAUREATE EXAM IN ROMANIA

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Abstract: The main purpose of this article is to provide a statistical analysis of students' performance on the Baccalaureate exam in Romania. According to final results before contestations, nationwide graduation percentage is slightly increasing in the last three consecutive years. Recent reforms of the Romanian educational system led to the identification of an approach more transparent and focused on achieving performance targets. The Baccalaureate is an exam that is taken at high school graduation, or as is often referred a "maturity test". Still, it's hard to commensurate the importance of the psychological factor in managing the Baccalaureate exam by romanian high school students. Furthermore, passing the baccalaureate exam is required for admission to university and also for developing a future career.

1. INTRODUCTION

The importance of the Baccalaureate exam put a lot of pressure on romanian high school students especially because of its decisive role in order to be enrolled on a university. University admission is conditioned by promoting the Baccalaureate exam with a minimum overall average mark of 6 (60%). Long-term implications on integration into employment of romanian high school students include a series of issues such as poverty level, family background, socio-economic climate, the financial security, ethnicity, religion and other. Education is a fundamental right of humanity but poverty, corruption, social inequity, discrimination, religious limitations, gender inequity, ethnicity issues and significant lack of a sustainable development commonly cause total minimization of this critical issue.

The global measures to ensure equal opportunity in education are extremely rigorous. UNICEF is a leading humanitarian and development agency working globally for the children's rights which mainly include safe shelter, nutrition, protection from disaster and conflict and traverse



the life cycle: pre-natal care for healthy births, clean water and sanitation, health care and education. Synthesising an extremely complex approach, UNICEF highlights the following fundamental issues : “Quality education is critical to development both of societies and of individuals, and it helps pave the way to a successful and productive future. When all children have access to a quality education rooted in human rights and gender equality, it creates a ripple effect of opportunity that influences generations to come.”

2. EMPIRICAL EVIDENCE AND FINAL RESULTS

According to the Bacalaureate Report 2014 - July 11, 2014 based on the final results before contestations, the results have provided the following nationwide statistics :

- 161.682 registered candidates
- 151.311 candidates who submit to examination
- 91.771 candidates who have promoted (60.65%).

According to the Bacalaureate Report 2015 - July 10, 2015 based on the final results before contestations, the results have provided the following nationwide statistics :

- 168.939 registered candidates
- 159.715 candidates who submit to examination
- 108.436 candidates who have promoted (67,9%).

According to the Bacalaureate Report 2016 - July 12, 2016 based on the final results before contestations, the results have provided the following nationwide statistics :

- 137.338 registered candidates
- 129.390 candidates who submit to examination
- 86.262 candidates who have promoted (66,7%).

The empirical evidence Bacalaureate percentage promotion rate divided by each county in Romania provides very interesting framework in the past three consecutive years, as expressed in the following table :

Table no.1 Analyzing Bacalaureate exam percentage promotion rate

serial no.	County	ISO code	Bacalaureate percentage promotion rate		
			2014 (%)	2015 (%)	2016 (%)
1	Alba	AB	69,10	75,34	72,73
2	Arad	AR	51,80	60,73	60,21
3	Arges	AG	64,30	68,43	69,92
4	Bacau	BC	71,10	79,97	79,91
5	Bihor	BH	59,40	64,75	58,07
6	Bistrita-Nasaud	BN	64,10	71,63	69,39
7	Botosani	BT	64,50	73,97	72,67
8	Brasov	BV	69,60	80,53	78,21
9	Braila	BR	78,60	79,11	74,37
10	Bucuresti	B	58,30	70,22	68,50
11	Buzau	BZ	61,70	70,64	65,58
12	Caras-Severin	CS	51,40	62,19	62,62
13	Calarasi	CL	53,40	56,60	55,33



14	Cluj	CJ	75,60	83,42	83,32
15	Constanta	CT	48,30	56,56	60,52
16	Covasna	CV	57,30	63,89	65,61
17	Dambovita	DB	51,50	61,74	56,55
18	Dolj	DJ	55,70	62,95	64,31
19	Galati	GL	69,40	76,40	77,65
20	Giurgiu	GR	38,80	37,33	40,06
21	Gorj	GJ	60,80	54,50	57,42
22	Harghita	HR	54,00	55,84	60,09
23	Hunedoara	HD	57,00	69,82	66,32
24	Ialomita	IL	57,40	68,79	64,27
25	Iasi	IS	74,80	77,68	76,51
26	Ifov	IF	29,30	68,79	34,15
27	Maramures	MM	63,20	68,50	66,98
28	Mehedinti	MH	46,60	54,91	54,48
29	Mures	MS	59,70	69,73	61,78
30	Neamt	NT	67,20	71,58	66,13
31	Olt	OT	49,50	57,93	59,75
32	Prahova	PH	65,90	75,52	73,03
33	Satu Mare	SM	63,90	73,91	68,67
34	Salaj	SJ	65,30	63,16	61,02
35	Sibiu	SB	69,90	77,69	77,69
36	Suceava	SV	67,30	70,09	71,19
37	Teleorman	TR	45,30	44,31	48,48
38	Timis	TM	57,20	66,20	63,25
39	Tulcea	TL	61,00	73,28	66,81
40	Vaslui	VS	66,10	69,90	69,62
41	Valcea	VL	63,10	66,34	67,26
42	Vrancea	VN	59,80	71,32	68,64

Source : Own computation based on data provided by Ministry of National Education and Scientific Research, Bacalaureate Report 2014, 2015, 2016

According to European Commission – Eurostat, in the year 2014, 122.3 million people, or 24.4 % of the population in the EU-28 were at risk of poverty or social exclusion (AROPE), compared with 24.5 % in 2013. In addition, gravity is greater as in 2014, more than a third of the population was at risk of poverty or social exclusion in three EU Member States respectively, Romania (40.2 %), Bulgaria (40.1 %) and Greece (36.0 %). Another statistics provided by the European Commission – Eurostat suggested that in 2014 the percentage of children living in a household at risk of poverty or social exclusion ranged from 14.5 % in Denmark, 15.6 % in Finland and 16.7 % in Sweden to more than 40.0 % in Hungary, Bulgaria and Romania. Poverty is one of the main reasons of high school dropouts in Romania. on the other hand, relatively high percentage of rural population considerably influence the motivation of romanian high school students for considering further study.

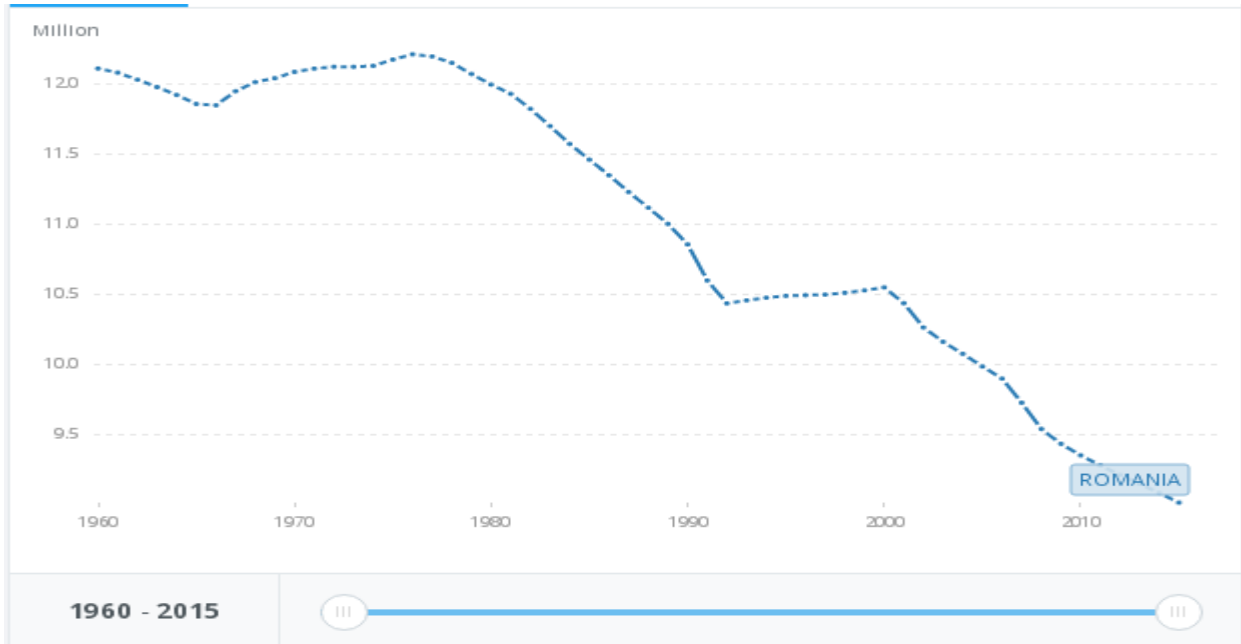


Fig. 1 Rural population in Romania

Source : World Bank Staff estimates based on United Nations, World Urbanization Prospects

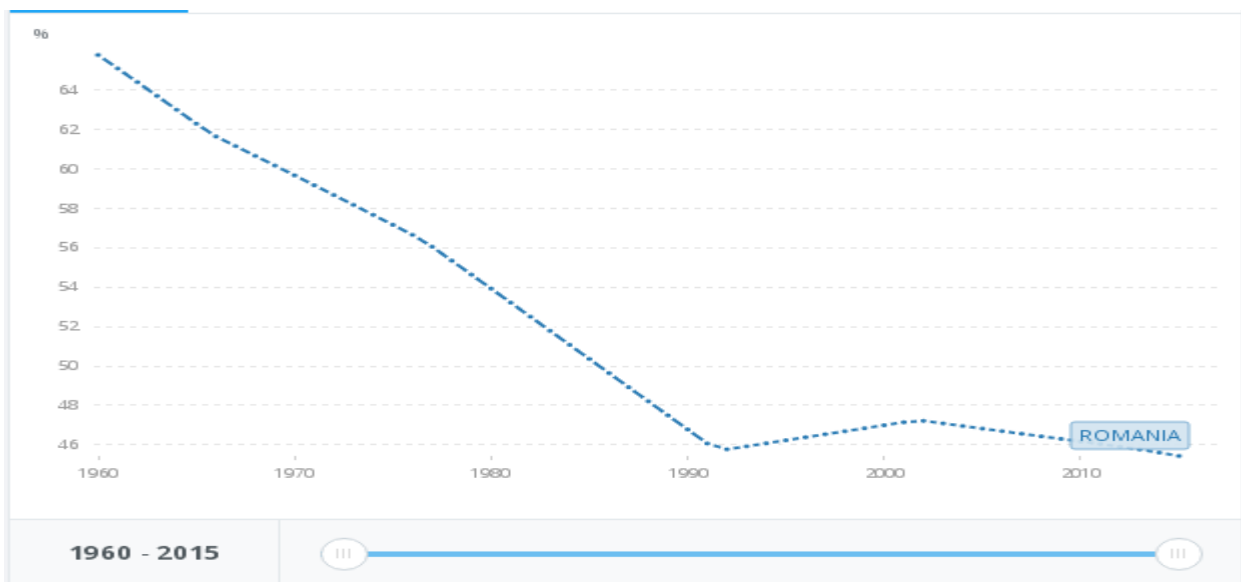


Fig. 2 Rural population (% of total population) in Romania

Source : World Bank Staff estimates based on United Nations, World Urbanization Prospects.



3. CONCLUSIONS

The main objective of this research paper is to conduct a statistical analysis of students' performance on the Baccalaureate exam in Romania. According to final results before contestations, promotion percentage is much higher in more developed counties in terms of socio-economic characteristics. moreover, counties with a higher percentage of rural population is characterized by a significantly lower percentage of Baccalaureate graduate. Nevertheless, education is a long term investment whose benefits are immeasurable for the future of an emerging country like Romania.

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