
STATISTICAL METHOD OF ANALYSING PROFESSIONAL REORIENTATION*

Ph. D. Lecturer Consuela NECȘULESCU,
Ph. D. Senior Lecturer Luminița ȘERBĂNESCU
University of Pitești

Abstract

In the crisis period faced by all countries, including by Romania, the unemployment phenomenon is very extensive, affecting tens of thousands of people. We are presenting a statistical analysis of the data regarding the reconversion courses. The data were collected from the questionnaires completed by 216 respondents from rural area in Arges County. In this article I made a statistical analysis of the data on professional reorientation courses taken from questionnaires filled in by 216 persons in the rural area of the Arges County. I applied to the data structured on groups of gender, age, status on the labour market and applications for courses, a number of statistical indicators. This study is important for the determination of the types of professional reorientation courses implemented in the current circumstances of the market economy.

Key words: inactive persons, jobseekers, unemployed, unemployed young person, adult unemployed, Gini-Struck and Herfindall coefficient, t test.

The article represents a theoretical perspective on employment and unemployment in the Arges County. There are elements that are interfering in the regulation of the supply-demand ratio, with its typologies, causes, effects, usually with a negative impact on the personality of individuals, families and society in general. There is analysing the evolution of the number of unemployed, their professional structure on age and gender, and the steps taken for their professional reorientation are calculated.

There is known the fact that unemployment - a complex social phenomenon, hand and has multiple psychosocial effects, which has a very large scale in the last few years. The increase in the number of unemployed worldwide focused the attention of the European Union on the problems of labour. The European Council regularly approached the problems of employment (Amsterdam 1997, Lisbon in March 2000, Stockholm –

* The methods are used in a **Study based on a sample level in the rural area of Arges County.**

March 2001, Lisbon - February 2005, Brussels 2010), outlining a *European Employment Strategy*. The purpose of the strategy is to combat unemployment at the level of the European Union and was designed as a main tool for outlining and coordinating the EU priorities in this sense, priorities to be addressed by each member. The role of this strategy is to coordinate at Community level, the employment policies of the Member States [1].

On 26 March 2010, in Brussels, the European Council discussed the new employment strategy and the EU economic growth – “*Europe 2020: a new strategy for employment and economic growth*”. The Council agreed on the main elements, including the key objectives that will guide the implementation and the methods of monitoring and improving the strategy. The main objective approved was to reach the employment rate of 75% for women and men aged 20 to 64 years, for women and men aged 20 to 64 years of young people, of older less skilled workers and of a better integration of legal migrants.

The frequent professional reorientation and the increase in the territorial mobility of labour are two necessary conditions for the decrease of structural unemployment, i.e. the unemployment caused by the inadequacy in terms of quality between the supply and the demand on the labour market [2].

There was considerable it was useful to analyse the main active measures adopted by the Arges County Unemployment Agency (AJOFM), with the purpose of preventing and combating unemployment, and for the reinsertion of the unemployed in the labour market.

The training programmes carried out are oriented towards the increase of the access to the labour market by enhancing the level of professional skills and employment in accordance with the tendencies of the labour market. The developing and promotion of entrepreneurship among unemployed can be achieved by stimulating jobseekers to start an independent activity or to initiate a business, in order to increase the employment level and the development of the local economy.

The main objectives of the professional training can be described as follows:

- Obtaining a professional qualification
- Adapting the employee to the requirements of the job or of the workplace
- Updating knowledge
- Professional reorientation determined by the socio-economic restructuring
- Acquiring advanced knowledge, modern methods and procedures necessary the professional activity.

The courses of the county unemployment agencies (free) were dedicated only to registered unemployed. The rate of participation to the training courses varies from one county to another, depending on the structure of unemployment and the number of unemployed registered in the AJOFM database.

The case study was carried out on a sample of persons which completed the questionnaire regarding their current status in the labour market and their interest to register for professional reorientation courses.

The analysis of the sample starts with a distribution of the respondents by gender and age based on which I determined the structure on gender and age groups and the concentration-diversification coefficient.

Distribution of persons surveyed according to sex and age

Sex	Age						Total
	Sub 25	25 – 30	31 – 40	41 – 50	51 – 55	Peste 55	
Number persons							
Total	26	21	74	81	9	5	216
B	11	7	23	37	8	4	90
F	15	14	51	44	1	1	126
%							
B	42,31	33,33	31,08	45,68	88,89	80,00	41,67
F	57,69	66,67	68,92	54,32	11,11	20,00	58,33
Concentration coefficients-diversification							
H-H [3]	0,5118	0,5556	0,5716	0,5037	0,8025	0,6800	
G-S [3]	0,1538	0,3333	0,3784	0,0864	0,7778	0,6000	

Source: *Questionnaires, AJOFM/ 2012*

Out of persons surveyed, 58.33% (126) were women and 41.67% (90) are men, hence women are more interested in professional reorientation courses provided by AJOFM Arges than men (the difference is statistically significant $p = 0.008094$).

The average age and the standard deviation of the persons in the analysed sample was 38 ± 9.28 years old (the mean value is representative for the analysed sample – the coefficient of homogeneity is 24.42%). Half of the respondents are younger than 39 years. Most persons who have an interest in professional reorientation courses are 39 years old.

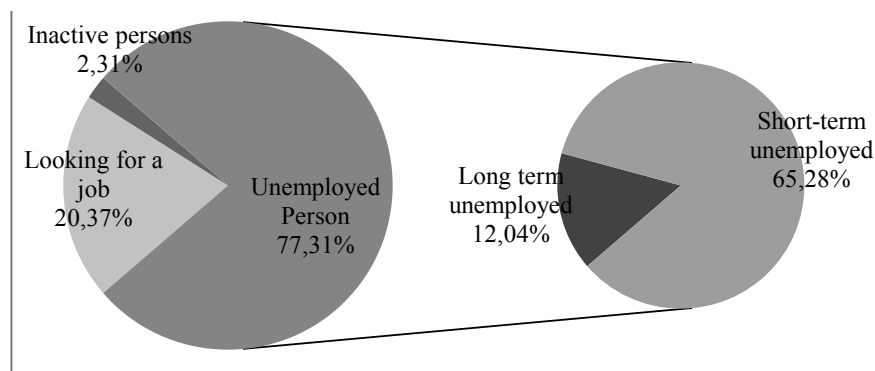
Respondents aged between 30 and 50 years have a high interest in professional reorientation courses, these age groups having the highest shares in the total respondents: for the age group of 31 – 40 years 34.26% (74 respondents) and 81% respectively (81 respondents) for the age group of 41-50 years. Respondents over 55 years old show the lowest interest and account for a share of 2.31% (5 respondents).

Up to the age of 50 years, women account for a higher share than men (the women share is between 54.32% for the age group 41-50 years and 68.92% for the age group 31-40 years compared to the men share between 31.08% for the age group 31-40 years and 45.68% for the age group 41 to 50 years). The difference between the share of women and the share of men under the age of 50 years is statistically significant, $p = 0.021 < \text{the significance threshold} = 0,05$ – the t test.

After the age of 50 years the women share decreases very much compared to that of men (the women share reaches 11.11% for the age group 51 – 55 years and that of men for the same age group is 88.89%).

The structure of respondents based on their current status in the labour market was realized in the following phase. They were grouped as: jobseekers, inactive persons, and long and short-term employees.

Distribution of persons surveyed after the current status on the labour market

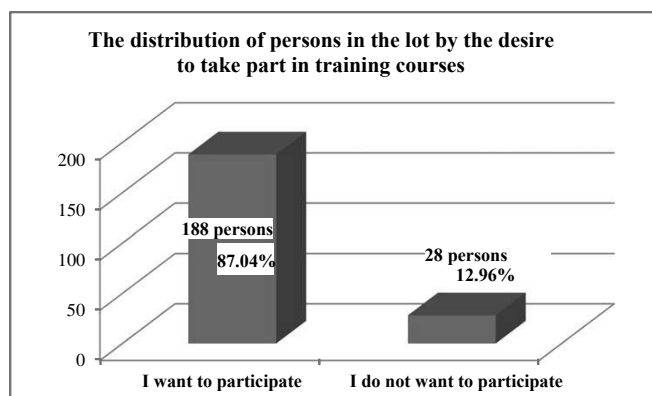


Source: Questionnaires, AJOFM/ 2012

Jobseekers account for 20.37% (44 persons) of all respondents and inactive persons account for just 2.31% (5 persons). Unemployed respondents account for the biggest share in all the respondents (77.31% - 167 persons). The respondents were divided into long-term unemployed with a share of 15.57% in all unemployed respondents and 12.04% in all the respondents (26 persons); and short-term unemployed with a share of 84.43% in all unemployed respondents and 65.28% in all the respondents (141 persons).

Out of all short-term employees we have only one young unemployed (age ≤ 25 years) all the other 167 persons are adult unemployed (age > 25 years).

From the analysed questionnaires I made the distribution of the persons depending on the desire to take part into refresher courses (see figure 2) and for each group I distributed the subjects on age and gender category.



Source: Questionnaires, AJOFM/ 2012

188 persons (87.04%), of the studied sample, wanted to take part to professional reconversion courses provided.

The distribution of persons in the Group analyzed in light of the desire to participate in retraining courses and age

		Years						Total
		Under 25	25 – 30	31 – 40	41 – 50	51 – 55	Over 55	
		Number persons						
Total		26	21	74	81	9	5	216
willing to participate	Total	22	20	64	71	8	3	188
	B	8	-	-	-	-	-	8
	F	14	20	64	71	8	3	180
I am willing to participate	Total	4	1	10	10	1	2	28
	B	1	-	-	-	-	-	1
	F	3	1	10	10	1	2	27
		%						
willing to participate		84,62	95,24	86,49	87,65	88,89	60,00	87,04
I am willing to participate		15,38	4,76	13,51	12,35	11,11	40,00	12,96

Source: Questionnaires, AJOFM/ 2012

Most respondents that participated to professional reconversion courses provided were aged between 30 and 50 years (135 persons – 71.81%) being women, which proves men's low interest in such courses.

There were 8 men under the age of 25, meaning 4.26% of the 188 persons who wish to attend professional reconversion courses.

Out of the 5 inactive persons only one is not interested in participating to professional reconversion courses. 93.18% (41 persons) from the jobseekers show interest in attending professional reconversion courses. Most of the unemployed, 85.63%, (143 persons), wish to attend professional reconversion courses provided by AJOFM Arges.

Out of the 188 subjects who wished to attend professional reconversion courses was determined the number of persons who chose a certain course.

The distribution of the persons who want to attend professional reconversion courses according to the desired course

	Trade worker	Elderly in home caregiver	Plumber	mason	woodcutter, carpenter, floorer	Barber	Cook	Aluminium and plastic carpenter	Heating installer	Cleaning agent	Milling and bakery	Baker , pastry cook	Milkman	Building administrator	Boarding house administrator	Social worker	Other courses
No. of persons	52	14	7	9	9	30	13	1	3	2	0	10	4	7	8	5	14
%	27.66	7.45	3.72	4.79	4.79	15.96	6.91	0.53	1.60	1.06	0.00	5.32	2.13	3.72	4.26	2.66	7.45

Source: *Questionnaires, AJOFM/ 2012*

The trade worker courses are requested by 52 persons (27.66% of the 188 persons) followed by the barber courses - 30 persons (15.96% of the 188 persons). Elderly in home caregiver course is on the third place, this course being requested by 14 persons (7.45%) Only 13 persons (6.91%) have chosen the cook courses. The least sought are the aluminium and plastic carpenter courses chosen by one person and the cleaning agent for which there are 2 applications. Nobody chose the milling and bakery course.

The order of trades required by the operator

The order of trades required of economic operators		No. persons applying for courses
1.	Trade worker	52
2.	Baker , pastry cook	10
3.	Barber	30
4.	Milkman	4
5.	Milling and bakery	-
6.	Cook	13
7.	Elderly in home caregiver	14

Source: *Questionnaires, AJOFM/ 2012*

According to the table above first place both in the requests of the business agents as well as in those of the subjects is occupied by the option “trade worker” while the occupation “barber” is on the second place in the option of those who want to attend professional reconversion courses and on the 3rd place in the requests of the business entities.

Conclusions

Based on the statistical analysis resulted that unemployed in the rural area of the Arges county are interested in changing and/or enhancing in various fields. Among the fields that are the most requested by the persons in the analysed sample, there are: trade worker, barber. There is some inconsistency between the demand for professional reconversion courses and the job offered by the business entities.

The respective study can be extended in order to carry out a statistical analysis at the level of the whole country.

Bibliography

- [1] <http://ec.europa.eu/social/main.jsp?catId=101&langId=ro>
[2] http://europa.eu/legislation_summaries/employment_and_social_policy/eu2020/em0028_ro.htm
- Săvoiu Gh., Crăciuneanu V., Țaicu M., (2010), *O nouă metodă de analiză statistică de concentrare sau diversificarea piețelor*, *Revista Română de Statistică nr.2/2010*
 - Anghelache, C., (2012), *România 2011, The economic crisis caught*, Economic Publishing House, Bucharest.
 - Atanasković, N., Jaško O., Čudanov, M., (2011), *Models of primary health financing reform*, *Economic themes*, 1, pp 83-95 <http://www.eknfak.ni.ac.rs/Ekonomske-teme/et2011-1.pdf>
 - Ford, Martin R. (2009), *The Lights in the Tunnel: Automation, Accelerating Technology and the Economy of the Future*, Acculant Publishing, ISBN 978-1448659814. (e-book available free online.)
 - Săvoiu G., Manea C., Simoni S., (2008), *The Demographic, Sociological and Geographical Profile. The Role of the Profile Method in Contemporary Management Nicolae Bălcescu Academy Publishing House, Sibiu, , pag. 185-199*
 - Săvoiu, G., (2004), *Applied statistics in the economic and social*, Independența Economică Publishing House, Pitești.