

Deloitte.



The cost of education: investment, efficiency, impact



Bucharest, August 2021

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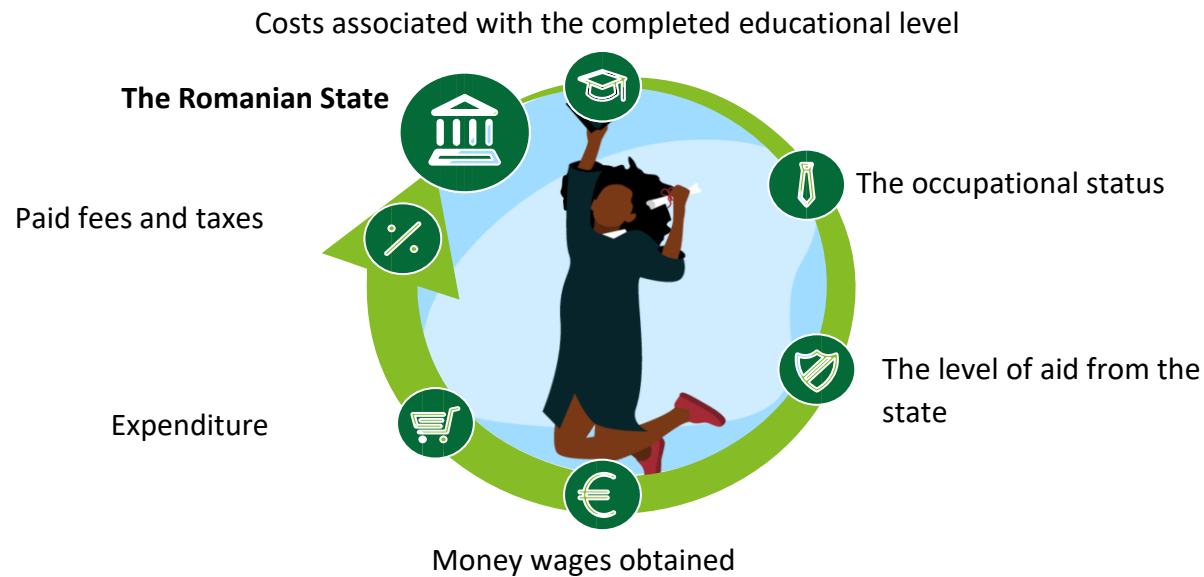
Objectives, Approach and Methodology

The objective...

...of the study is to showcase the overall image of the following costs and benefits directly or indirectly correlated to the access to education:

1. The main expenses of the state regarding the education of a person depending on the level of education accessed;
2. The aid which the state provides to a person throughout their life (post-education), depending on their needs;
3. The average wages obtained by a person depending on their occupational status and level of education, expenses done by this person as well as the appropriate payments of the taxes and fees afferent to the types of goods and services purchased

Therefore, the analysis of the above elements allows for a correlation between the completed educational level and its cost, the occupational status and the need for aid from the state (post-education), as well as the monetary wages obtained, used for the purchase of goods and services and in the payment of the related taxes and fees.



Objectives, Approach and Methodology

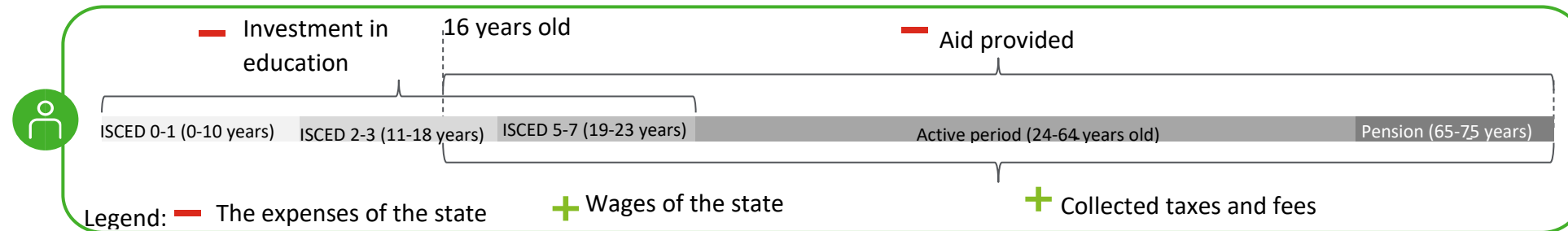
The approach...

...implied the identification and the distribution of the components of cost and benefit, from the perspective of the state, throughout the average lifespan of a person (75 years old) considered within the study, not taking into consideration demographic data. The analysed elements are the following:

1. **The main categories of expenses of the state regarding the education of a person** on the levels of the International Standard Classification of Education (ISCED);
2. **The main types of (monetary) aid** which the state offers to the people part of the analysed categories of occupational status;
3. **The average contributions to the state** derived from the VAT and other taxes and fees paid by a person, calculated depending on the wages and expenses in the following manner.
 - a) **The average monetary wages of the people** depending on the level of education attained and the occupational status;
 - b) **The main types of expenses, determined as a percentage from the wages** depending on the consumption level of each person and
 - c) **The average contributions** which a person pays to the state as a result of the purchase of goods and services.

The result of the analysis provides a comparative image between the average costs of the state regarding the education of a person, the average aid provided by the state to a person (post-education) depending on their needs and the contributions brought by this person through the taxes and fees which they pay depending on the access to education and the occupational status.

Graphic 1.1 Costs and benefits of the state throughout the life of a person

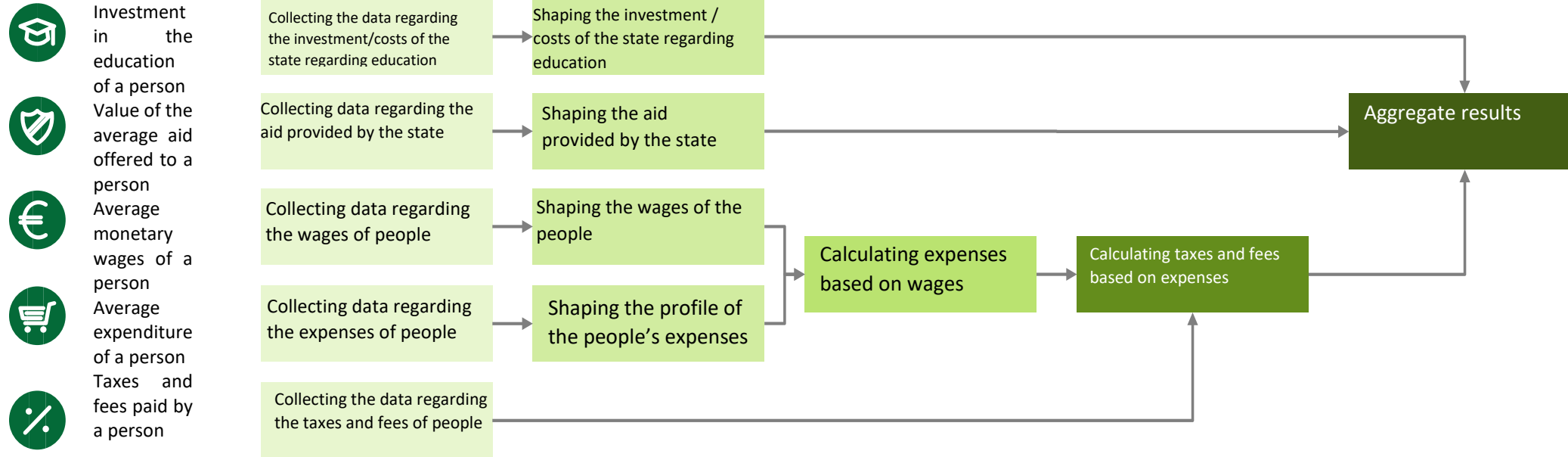


Objectives, approach and methodology

Methodology [1/7]

The stages covered through the conduct of the study were collecting data from public sources and processing it to obtain average values for a person – in this respect, the following types of data were collected and processed:

Graphic 1.2 The main stages of the processing of data



The wages, expenses, taxes and fees were calculated for each type of occupational status analysed, going from the values recorded per household level (INS data). These values reflect the occupational status of the head of the household, who, in most cases, is the main breadwinner. However, it should be

taken into consideration that, most of the time, part of the households is actually made of mixed households, covering people who benefit from different types of wages. Therefore, the average wages show that the people from the analysed categories can have a different economic situation compared to those people who obtain wages from a single source, respectively living off only of salaries and pensions.



Objectives, approach and methodology

Methodology [2/7]

The study showcases the costs and benefits that the state has in relation to the people who access different levels of education and falling into the categories of occupational status presented in Table 1.1.

The costs and benefits, spread over a period of 75 years (average lifespan taken into consideration within the study), were calculated in RON, taking into account the public data from 2020, and were not adjusted with indicators such as inflation, actual net value, etc.

The figures presented in the study can be viewed both from the perspective of the state and the costs/investments and benefits of the state derived from a person accessing different levels of education can be taken into consideration, as well as from the perspective of the latter, when the data can be considered as aid, income and related expenses as in Table 1.3.

Table 1.1 The level of education accessed and the occupational status¹













Occupational status \ Accessed level of education	ISCED 0-1	ISCED 2-3	ISCED 5-7
Freelance worker in non-agricultural activities			
Farmer			
Unemployed			
Employee			






Table 1.2 ISCED levels taken into consideration within the study

¹ Within the present study the information referring to the category "Owner"/"Entrepreneur" are not showcased because of the limited amount of information



Level/Branch/Profile	ISCED
Preschool education with normal schedule	ISCED 0 ²
Primary education	ISCED 1
Secondary school	ISCED 2
Theoretical high school education	ISCED 3 ³
University education (Bachelor and Master)	ISCED 5-7

Table 1.3 The main components of the report from the perspective of the state and of the person who accessed different levels of education

+/-	State		+/-	Person
-	Expenses related to education		+	Free access to education
-	Aid provided depending on needs		+	Aid received depending on needs
-	-			Monetary needs (except the ones from the aid from the state)
-	-			Monetary expenses
+	Collected taxes and fees		-	Paid taxes and fees

² Including those without studies

³ ISCED 4 level (post-secondary/non-university tertiary education) was not included in the analysis

Objectives, approach and methodology

Methodology [3/7]

1. Investment in the education of a person – including the following categories for the state:

I. Costs with the pre-school, primary, secondary and high-school education (ISCED 0-4) derived from:

a. Average standard costs per student/pre-schooler (according to the Government Decision no. 107 from 4 February 2020):

- i. Expenses regarding salaries, bonuses, indemnities and other salary rights in cash, established by law, as well as the afferent contributions;
- ii. Expenses regarding the professional training, expenses regarding the periodic evaluation of the students as well as expenses provided in the budget article “goods and services”;

b. The Romanian School Programme between 2017-2023 for the school year 2019-2020

II. Costs with the university education (ISCED 5-7) representing:

a. Budget allowances intended for institutional funding, for the year 2020 (according to the National Council for the Funding of the Higher Education).

The values for year 2020 were assigned for the entire period of the respective cycle of education. For example, if the average standard cost on levels per student for high-school education is 6990 RON per year, then the cost afferent to the four-year cycle will be of $4 \times 6990 = 27.960$ RON.



Objectives, approach and methodology

Methodology [4/7]

2. The value of the average aid provided to a person - includes the following categories of costs for the state:

I. Average aid from social benefits, except for family benefits (child allowances and scholarships for pupils and students), according to the report of the National Institute of Statistics - *“Coordinates of the standards of living in Romania. Income and population’s consumption, in 2020”*:

- a. Allowances for temporary incapacity for work, maternity and childcare;
- b. Benefits from the unemployment fund;
- c. Social assistance and other benefits, such as social assistance provided by town halls

II. Minimum guaranteed social indemnity:

a. The indemnity used during the analysis was that of 704 RON, corresponding to the period January 1, 2020 - August 31, 2020, according to GEO no. 135/2020.

The report “Coordinates of the standards of living in Romania. Incomes and population’s consumption, in 2020” showcases the aggregate data at the level of household and at the level of occupational status respectively, which is given by the head of the household. In order to obtain the value of the average aid granted from social benefits, it was proceeded as follows:

- *the family benefits were removed (child allowances and scholarships for pupils and students) from the wages from social benefits;*
- *the average number of children from the average number of members of a household was decreased;*
- *the wages from social benefits were distributed per household to the number of household members to reach a value per person. It was assumed that all members of the household have the occupational status of the head of the household.*



Objectives, approach and methodology

Methodology [5/7]

3. The average monetary wages (except for the wages from family benefits and wages in kind) depending on the occupational status and level of education, according to the report of the National Institute of Statistics „*Coordinates of the standards of living in Romania. Income and the population’s consumption, in 2020*”, include the following wage categories for a person:

I. Gross wages and other salary entitlements;

II. Wages from agriculture;

III. Wages from independent non-agricultural activities;

IV. Wages from social benefits;

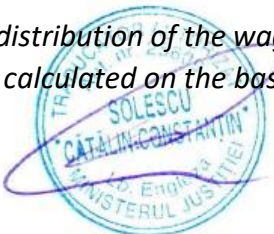
V. Wages from property and sale of assets from the patrimony of the household;

VI. Other wages.

The report “Coordinates of the standards of living in Romania. Wages and the population’s consumption, in 2020” showcases the aggregate data at the household level and at the occupational status level respectively, which is given by the head of the household. In order to obtain the average monetary wages, it was proceeded as follows:

- *the in kind and family benefits wages (child allowances and scholarships for pupils and students) were removed from the total;*
- *the average number of children from the average number of members of a household was decreased;*
- *the wages from social benefits were distributed per household to the number of household members to reach a value per person. It was assumed that all members of the household have the occupational status of the head of the household.*

The distribution of the wages throughout the period of activity of a person was done depending on the evolution trend of the wages and other financial resources, taking into account the age, calculated on the bases of the data of the report “Coordinates of the standards of living in Romania. Wages and the population’s consumption, in 2020”



Objectives, approach and methodology

Methodology [6/7]

4. **The average monetary expenses on destinations depending on the occupational status**, according to the report *“Coordinates of the standards of living in Romania. Wages and the population’s consumption, in 2020”*, include the following categories of expenses at the person level:
- I. **Consumption expenses;**
 - II. **Expenses for food and beverages not consumed (left in stock, given to processing, given to animals.);**
 - III. **Expenses for investments;**
 - IV. **Production expenses;**
 - V. **Fees, contributions, levies and taxes:**
 - a. Income tax;
 - b. Pension tax;
 - c. Tax on independent non-agricultural activities;
 - d. Social insurances contributions;
 - e. Contributions for health insurances;
 - VI. **Other monetary expenses.**

The consumption expenses were detailed according to the international methodology of classification of the individual consumption depending on the purpose – COICOP (Classification of Individual Consumption According to Purpose) – presented in Appendix 1. The consumption expenses do not include the consideration of the consumption of agri-food from its own resources for human consumption.

Regarding the correlation of wages and expenses, it was assumed that the average monetary wages registered by a person are entirely spent according to the profiles of the expenses showcased in Appendix 2.



Objectives, approach and methodology

Methodology [7/7]

5. **Taxes and fees** include the following categories of expenses at the level of a person:

- I. **Value added tax (VAT)** – calculated by applying quotas between 0% and 19% depending on the category of monetary expense done according to the current Fiscal Code from Romania and showcased in Appendix 3 – Used VAT quotas;
- II. **Fees, contributions, levies, taxes** – taken over as an absolute value from the list of average monetary expenses (showcased on the previous page):
 - a. Taxation on salaries;
 - b. Taxation on pensions;
 - c. Taxation on independent non-agricultural activities;
 - d. Social insurances contributions;
 - e. Health insurances contributions.



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Summary [1/3]



According to the Romanian Constitution, Article 32 - The right to education, (4) *State education is free according to the law [...]. (1) The right to education is ensured through the compulsory general education, through high school and professional education, through higher education, as well as other forms of instruction and improvement.* Depending on the level of education that a person accesses, the state has a number of expenses, which at the same time can be seen as an investment, the level of education of the respective person influencing the wages, expenses and taxes and fees paid.



Depending on the level of education attained, a person will have a certain occupational status. The occupational status correlated with the level of education attained determines the level of monetary wages that a person can generate.



Depending on the level of income and other considerations, the state, through its various mechanisms provides aid to people such as: social benefits, the minimum social indemnity guaranteed.



With the monetary wages available, a person buys a series of goods and services necessary.

In addition, from the gross monetary income a person pays fees, contributions, levies and taxes for the wage obtained and for expenditure.

In this respect, three types of education costs were analysed depending on the level of education - Primary/ISCED 0-1, Secondary/ISCED 2-3, Higher/ISCED 5-7 and four categories of occupational status – freelance worker in non-agricultural activities, Farmer, Unemployed, Employee according to Table 1.1 (in the present study information referring to the category “Owners”/“Entrepreneurs” is not showcased due to the limited amount of information.



The general conclusion is that on average a person with a higher level of education can access an occupational status that can bring in more monetary wages, wages that can ensure a standard of living and superior comfort with access to a wider range of products and services.

Thus, the costs incurred by the state regarding the education of a person can be seen as an investment by the state in the respective person – the efficiency of this investment being given by the amount paid by the respective person in the form of fees, contributions, levies and taxes, but also the financial independence on the support schemes of the state.

Summary [2/3]

Investment in education - The level of education has a significant impact on the size and structure of wages, expenses and consumption.

The annual costs of the state regarding the education of a person gradually increase depending on the level of education - for example, from ~ 5000 RON/person for pre-school education to ~11000 RON/person for higher education, in 2020. (details in Graphic 3.2.1)

Transposed during the study cycles, the average costs with education per cycle of study/person are of ~27000-28000 RON for each of the cycles ISCED 0 - ISCED 4, respectively 54000 RON for ISCED 5-7 (details in Graphic 3.2.2). However, given the benefits after completing the educational cycle, investment in education seems to be a high efficiency one.

Wages - the growth trend is determined by the level of training accessed, which influences the employment status and which together determine the level of monetary income.

In addition to the significant increase in wages due to the increase in the level education, even within an occupational status, there is also a positive difference in terms of the annual monetary wages between the different categories of occupational status. Therefore, there is a positive difference between employees and freelance workers in non-agricultural activities (~62% more in the case of employees) and farmers respectively (~73% more in the case of employees).

Regarding the evolution of wages over time (shown in Graphic 3.3.2), it can be seen that there are significant differences between employees with primary education (ISCED 0-1) and secondary education (ISCED 2-3) compared to other categories with similar wages. However, the maximum wage is reached by employees with higher education (ISCED 5-7) which according to Graphic 3.1.4 represents 24% from the total number of employees.

Expenses - The consumption profile differs depending on the level of education as can be seen in Graphic 3.3.3 - Access to a higher level of education determines a percentage decrease in consumption expenses and an increase in expenses regarding fees, contributions, levies, taxes from the total expenses.

Consumption expenses hold the main percentage of the total income (~50% in the case of employees and ~73-83% in the case of the other categories of occupational status). The following structure as a percentage is represented by fees and taxes (**~46% in the case of employees and ~ 11-23% in the case of other categories of occupational status**) (details in Graphic 3.3.4).

Comparing the two major components, it can be observed that a person with a higher level of education and higher income pays a higher percentage of the total expenses to the payments to the state and a lower percentage to the consumption goods.



The comparison of the structure of the consumption expenses on the type of occupational status reveals that the consumption behaviour, determined in turn by the educational level as well, influences the structure of the consumption expenses. Therefore, the expenses on agri-food products and non-alcoholic beverages represents 27% of the total consumption expenses of employees and between 29-36% for the other categories of occupational status, while the same expenses represent 13% of the total monetary expenses of employees and between 22-26% for the other categories.

Showing an orientation of a higher percentage of the wages towards meeting the basic needs for the other categories in comparison with employees.

Health expenses represent ~4% of the total consumption expenses spending, **and those with education a maximum of 1%**. One of the reasons for the low level of these types of expenses is represented by the fact that meeting these needs is achieved mostly through public services offered within the social insurance system or free of charge.



Summary [3/3]

Fees, contributions, levies, taxes – have a bigger percentage from the monetary wages of the employees – over 46% while for the other categories the percentage is between 11-22%. At the same time, by analysing Graphic 3.3.5 we can observe the importance of the level of training within each category of occupational status analysed regarding the fees, contributions, levies, taxes – this type of expenditure increasing directly proportional with the level of education.

The aid provided by the state to the people after completing their studies varies depending on the category of occupational status in the following manner: employees or freelance workers in non-agricultural activities receive the biggest support - ~94% and ~74% respectively in the form of indemnities for temporary incapacity for work, maternity leave, childcare, farmers receive ~91% of the amounts in the form of social assistance benefits and other benefits, and the unemployed receive the following types of support: ~28% social assistance benefits and other benefits, ~30% of benefits from the unemployment fund and ~42% in the form of indemnities for temporary incapacity for work, maternity, child care respectively.

They also vary in absolute size, from ~170 RON/year for freelance workers in non-agricultural activities to ~1,200 RON/year for the unemployed in 2020 (details in Graphic 3.4.1).

Within each category of occupational status, except for employees, there is a significant reduction in the aid necessary from the state after completing their studies as the person has a higher level of training. For example, between people with primary education (ISCED 0-1) and those with secondary education (ISCED 2-3) the aid given by the state support throughout the considered lifespan is reduced by ~25000 RON (33%) in the case of farmers, ~31000 RON (26%) in the case of the unemployed and ~35000 RON (54%) in the case of freelance workers in non-agricultural activities.

For the entire period of granting social benefits, including the guaranteed minimum social pensions, their value is significantly higher for the unemployed, farmers and freelance workers in non-agricultural activities compared to the one granted to employees and decreases as the level of education increases (details in Graphic 3.4.3).

Higher cost values for the categories of occupational status: unemployed, farmers and freelance workers in non-agricultural activities, to which the costs of the state regarding education are added, lead to much higher costs for these categories compared to the taxes and fees collected from these people.

Summarising the above – the grade of training is proven to be a different factor which influences the level of wages and consumption expenses, as well as the shaping of the consumption behaviour.

Conclusions [1/3]

The investment in education

From the analyses and statistics presented in this study, it can be concluded that the level of education has a positive impact on the size and structure of wages, while also determining a high level of financial independence of the person to the support schemes from the state. Also, the structure of expenses and consumption is influenced by the level of education, an increased level of training, generating a higher level of wages, respectively of taxes and fees paid to the state.

The cost of lack of education

From the perspective of a person

- A low level of education has a directly proportional impact on wages. At the same time, it generates a high degree of dependence to the support schemes from the state.
- Lack of education limits access to a wider range of categories of occupational status - especially the one of a high-income employee. The general tendency is for such a person to go to freelance activities or unemployment and social support.
- In addition, a low level of wages limits the access to goods and services resulting in a low standard of living and low comfort.

From the perspective of the state

- A person who has a low level of training involves lower costs with education, but at the same time it means much higher costs on longer duration, in some cases throughout the entire life of that person, after completing their studies.

Benefits of education

From the perspective of the person

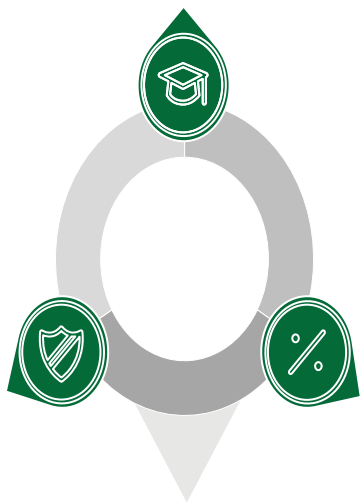
- According to this study, the monetary wages earned by the adult population have a growth rate of ~2:1 at each growth threshold of the level of education (primary - secondary, secondary-upper).
- Thus, higher education leads to a high level of wages and expenses by default, providing access to a greater variety of goods and services, of superior quality, contributing to the increase of the standard of living and the comfort of personal life.



From the perspective of the state

- The main source of wages for the state, for the compensation of the expenses regarding education and post-educational cycle is represented by collecting taxes, fees, contributions and levies afferent to the different types of expenses/wages obtained by the population. Therefore, a higher level of wages and expenses will lead to an appropriately higher level of taxes and fees.
- It can be seen from the present study that the largest contributors to the wages of the state are the people with the highest level of education.





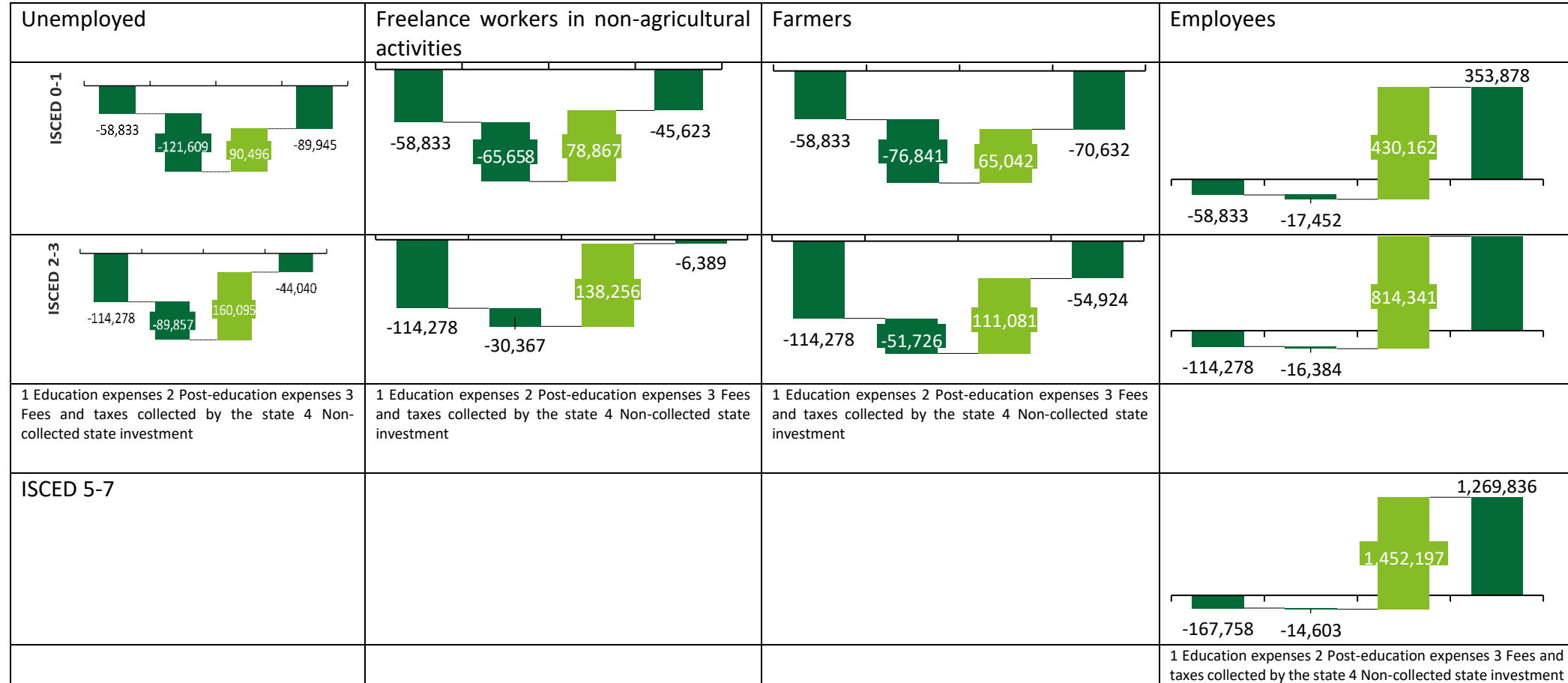
Employees represent the only type of occupational status from the ones analysed which generate a positive efficiency of the investment of the state in education, needing a minimum level of aid after completing the educational cycle and generating higher wages from taxes and fees (details in Graphic 2.1).



Conclusions [2/3]

Employees represent the only type of occupational status from the ones analysed who generate a positive efficiency of the investment of the state in education, needing a minimum level of aid after completing the educational cycle and generating higher taxes and fees.

Graphic 2.1 The efficiency of the investment of the state in education depending on the occupational status and level of study (RON)



Source: Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021, Deloitte analysis



Conclusions [3/3]

The comparative analysis of the expenses regarding education and the aid offered after the completion of the educational cycle versus the amounts collected from fees and taxes on the four categories of occupational status analysed and the three levels of education showcase the following conclusions...

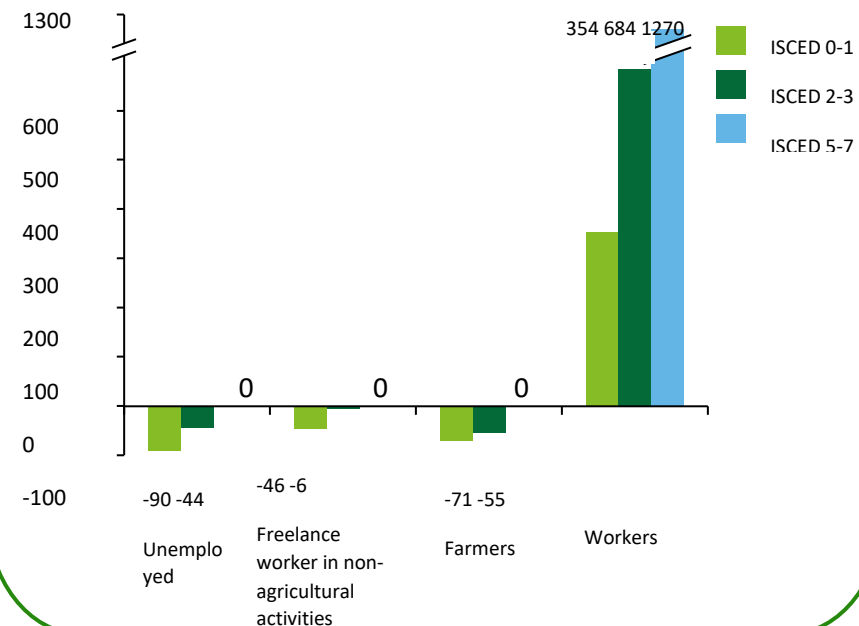


... the monetary wages obtained by the adult population have a rhythm of growth of ~2:1 – for each threshold of growth of the level of study (primary – secondary, secondary – higher). The average monetary wage of a person double at the same time as graduating the last education cycle.

... as it can be seen in Graphic 2.2, graduation from secondary education (ISCED 2-3) leads to an improvement in the efficiency on investment in education (generated by the reduction of state expenditures with the aid after the end of the education cycle and wage increase) by 22% for farmers, 51% for the unemployed and over 86% for freelance workers in non-agricultural activities, while for employees it determines an increase in state wages by ~93%. Completion of higher education (ISCED 5-7) determines an increase of ~86% for the employee compared to the wage of the employee with secondary education.

... observing the extremes, the difference between an unemployed person with primary education (ISCED 0-1) and an employee with higher education (ISCED 5-7) is approximately 1.36 million RON for the state, as it can be seen in Graphic 2.2. The state has costs of approximately 90000 RON with the aid provided during the entire lifespan of an unemployed person with primary education, while an employee with higher education contributes with over 1.27 million RON through fees and taxes.

Graphic 2.2 The efficiency brought by each category of occupational status depending on the level of training accessed (thousands RON)



Source: Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021, Deloitte analysis

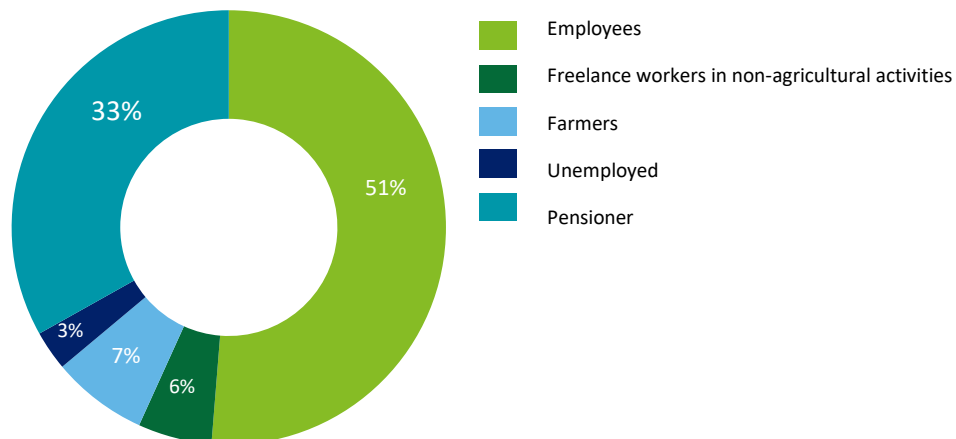
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The distribution of the people in household according to the occupational status of the head of the household

Graphic 3.1.1 The distribution of the people in household according to the occupational status of the head of the household in 2020 (%)



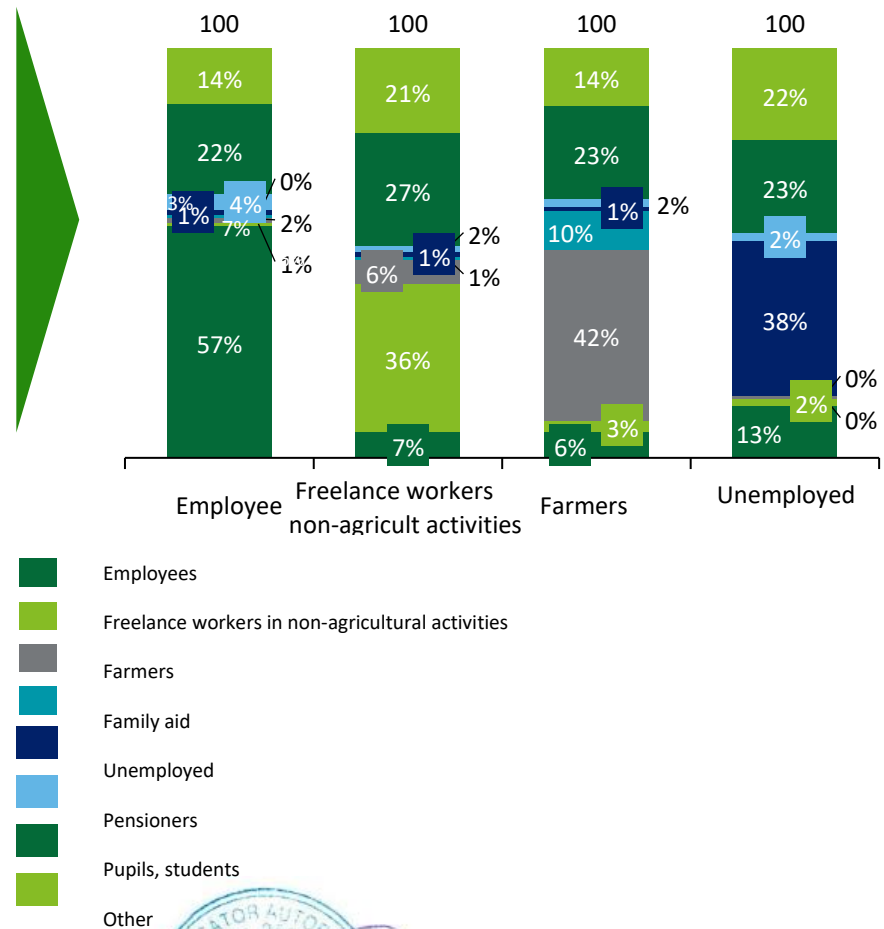
Source: *Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021*

- The category of employees represents the biggest percentage from the analysed categories – totalling over half of the total population.
- The pensioners are the second category by dimension but this category was not individually analysed in the present study, this category being incorporated as a stage throughout the lifespan of an employee, farmer, unemployed etc.
- Regarding the distribution of people from a household after the occupational status depending on the occupational status of the head of the household it can be observed in Graphic 3.1.2 that he is representative for each category, having the biggest percentage and being followed by the pupil and student category and others.¹

¹ *The wages and expenses generated by pupils and students were excluded from the calculation of the wages and average expenses per person*



Graphic 3.1.2 The distribution of the people in household according to the occupational status of the people and the head of the household in 2020 (%)

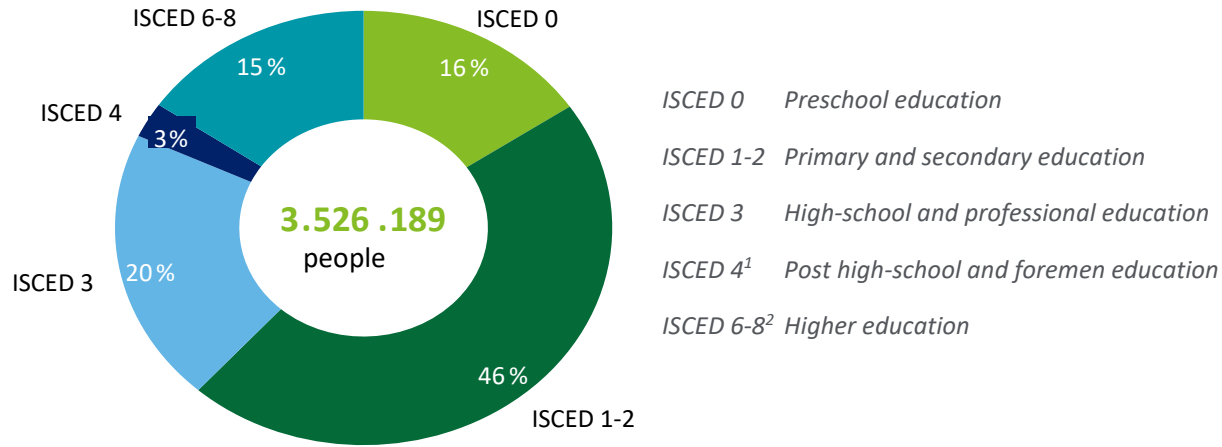


Source: Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021



Distribution of the scholar population by educational levels and of the households by occupational status and training level

Graphic 3.1.3 Scholar population by educational levels in the school/university year 2019-2020 (% and total number of people)

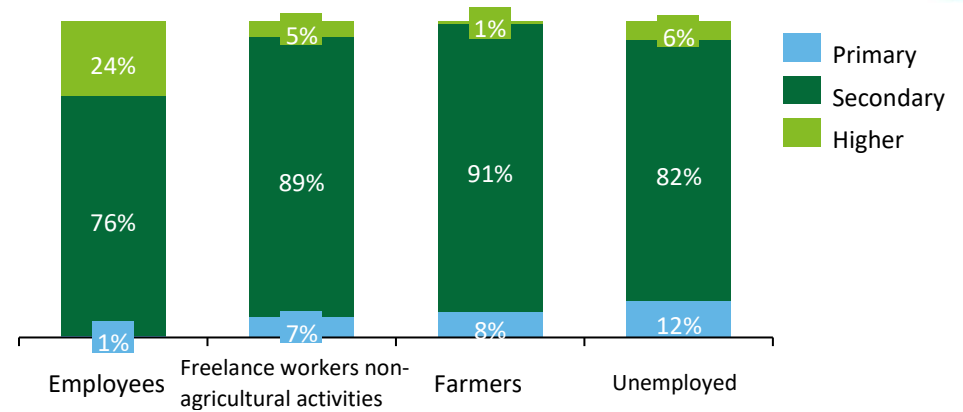


¹ ISCED 4 – Post high-school and foremen education was not included in the present study

² Doctorate or an equivalent level was not included in the present study

Source: Press communicate no. 161/25 June 2020, INSE

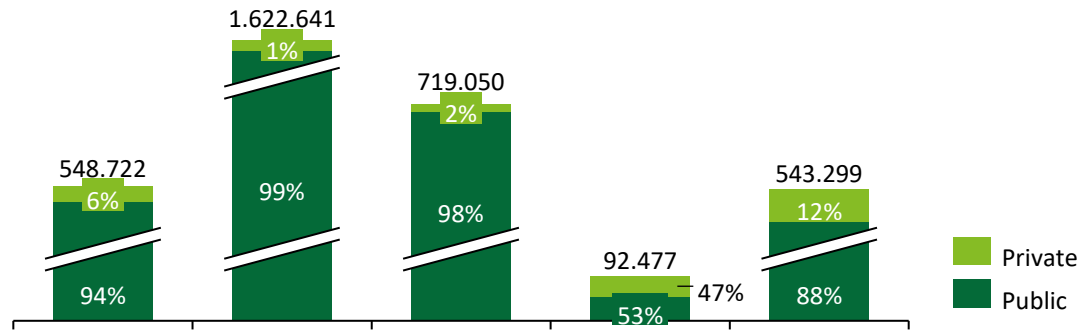
Graphic 3.1.4 Distribution of the household after the occupational status and the level of training of the head of the household, in 2020 (%)



Source: Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021



Graphic 3.1.5 Scholar population on educational levels and property forms in the school/university year 2019-2020 (number of people)



- In the school/university year 2019-2020, approximately half of the school population was found in primary and secondary education (46%), and about a third in high-school and ante-preschool and preschool education (20% and 16%, respectively).
- 98-99% of primary, secondary and high school education is carried out in units of public education.
- The highest degree of schooling is held by households employees, 24% of which are run by people with higher education.



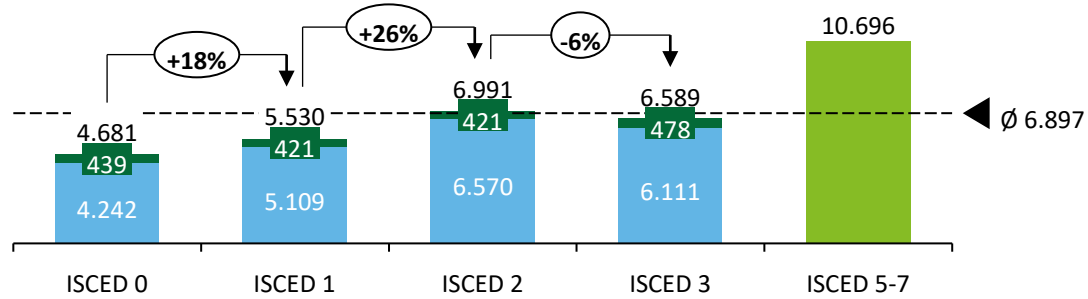
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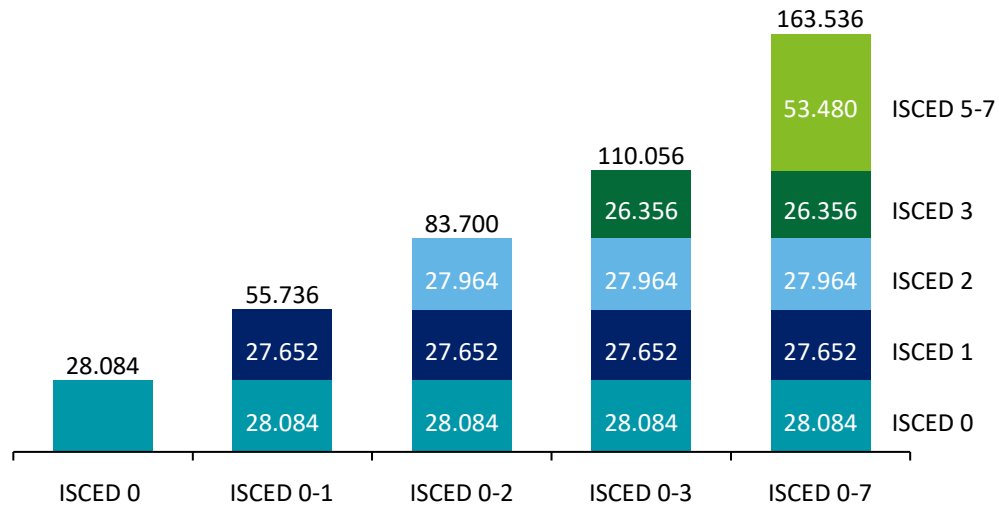


Costs of the state regarding education vary depending on the level of education, from ~5000 RON/person for pre-school education to ~11000 RON/person for higher education in 2020

Graphic 3.2.1 Costs of the state regarding the education of a person per year, on levels of education in 2020 (RON)



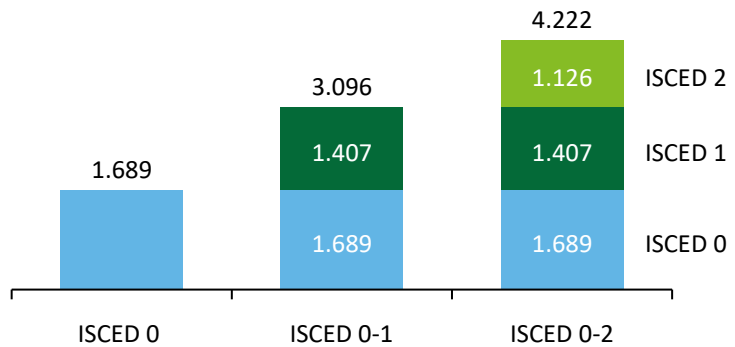
Graphic 3.2.2 Costs of the state regarding the education of a person, cumulated per levels of education, on the duration of their progress (RON)



- Budget allocations destined for institutional funding (bachelor and master)
- Expenses regarding professional training, periodic evaluation and the ones provided in budget article “goods and services”
- Expenses regarding wages, bonuses, indemnities and other salarial rights in cash

Through funding the Romanian Programme for schools, for the school year 2019-2020, 281.5 RON was allocated per pupils in the pre-school, primary and secondary education.

Graphic 3.2.3 Costs of the state regarding the Romanian Programme for schools cumulated per levels of education, on the duration of their progress (RON)



Sources:

- Government Decision no. 107 of February 4, 2020



- *Annex 1. Proposal for the final allocation by university of budgetary allocations for institutional funding, for year 2020 - National Council for the Funding of Higher Education*
- *Number of students studying in subsidized regime and with fee, for each study cycle, in state universities, university year 2019-2020 - National Council for the Financing of Higher Education*
- *Government Decision on establishing the budget for the implementation of the Romanian Program of schools between 2017-2023 for the school year 2019-2020*



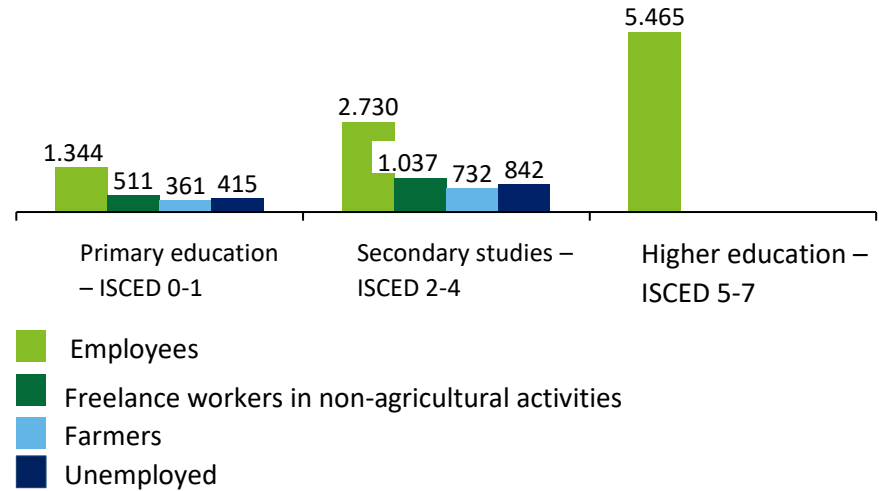
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The annual monetary wages of an adult are doubled by the increase of the study level (primary – secondary, secondary – higher)

Graphic 3.3.1 Monetary wages of an adult depending on their occupational status and level of education (monthly gross average wages, RON)



Annual monetary wages of employees are ~62% bigger than those of freelance workers in non-agricultural activities and ~73% compared to farmers respectively for both types of education (ISCED 0-1 and ISCED 2-4).

Note:

- Showcased wages do not include wages from family benefits.

Source: *Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021, Deloitte analysis*

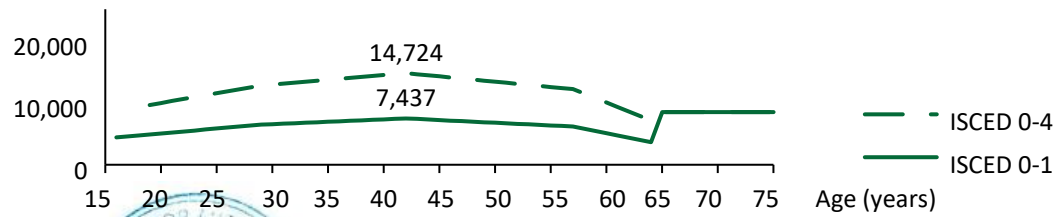
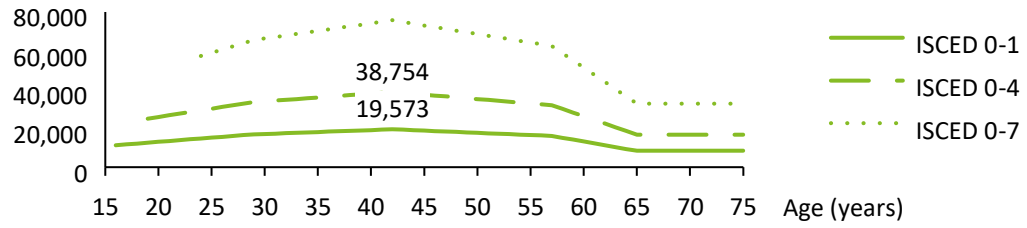


Graphic 3.3.2 Evolution of monetary wages depending on the occupational status and level of education (annual gross average wages, RON)

Employees

Maximum amount reached

Monetary wages (RON) 75,710

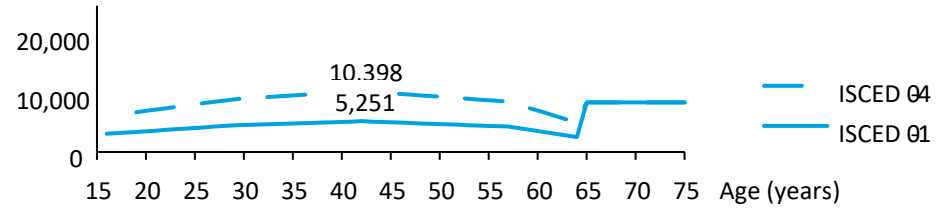


Freelance workers in non-agricultural activities

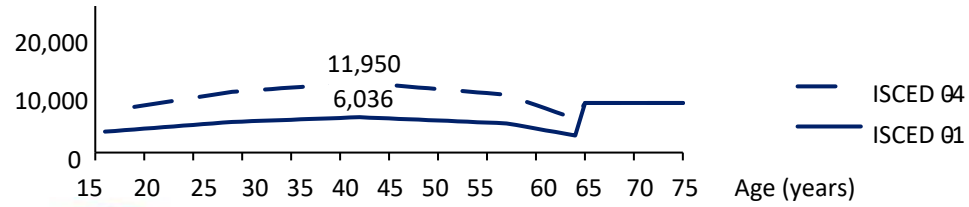
Monetary wages (RON)



Farmers
Monetary wages (RON)

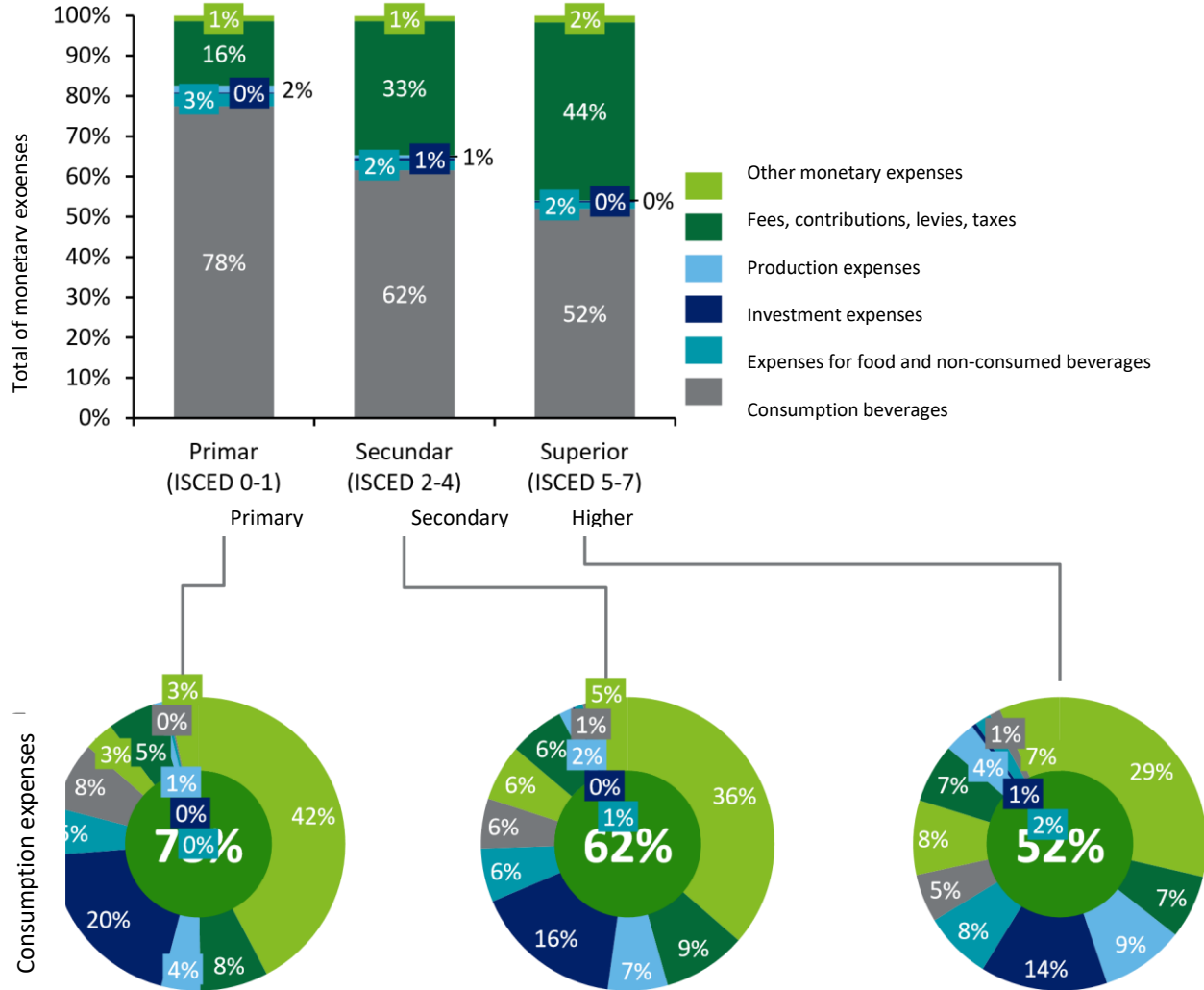


Unemployed
Monetary wages (RON)



Accessing a higher level of study determines, at the same time as the increase of wages, a percentage decrease of the consumption expenses and an increase in the expenses regarding fees, contributions, levies and taxes from the total of expenses

Graphic 3.3.3 Monetary expenses on destinations by level of training (%)



Source: Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021, Deloitte analysis



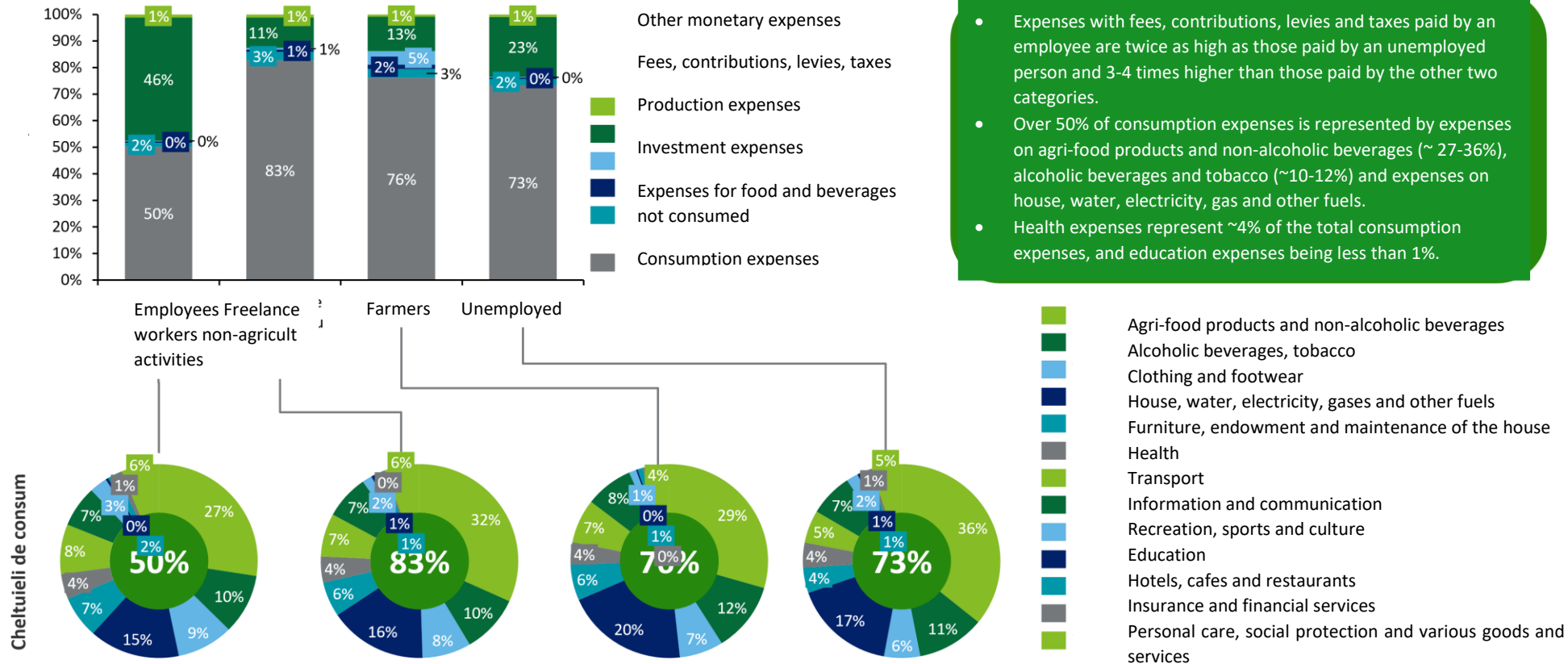
- Consumption expenses is the biggest component of the total expenses - between 52% for a person with higher education and 78% for a person with primary education.
- Expenses regarding fees, contributions, levies and taxes increase significantly in direct proportion to the level of training both as a percentage of the wage and as a basis for which that percentage applies (the wage of a person with higher education being higher than those of a person with primary or secondary education).
- Also people with higher education buy more non-food goods.

- Agri-food products and non-alcoholic beverages
- Alcoholic beverages, tobacco
- Clothing and footwear
- House, water, electricity, gases and other fuels
- Furniture, endowment and maintenance of the house
- Health
- Transport
- Information and communication
- Recreation, sports and culture
- Education
- Hotels, cafes and restaurants
- Insurance and financial services
- Personal care, social protection and various goods and services



Over 50% from the wages of an adult, regardless of their occupational status, are allocated to the consumption expenses, from which education represents less than 1%

Graphic 3.3.4 The percentage allocation of wages on types of expenses, depending on the occupational status (%)



Source: Coordinates of the standard of living in Romania – Wages and the consumption of the population, INSE 2021, Deloitte analysis

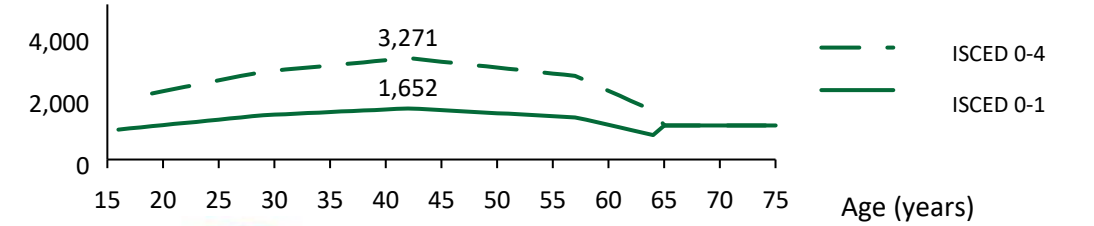
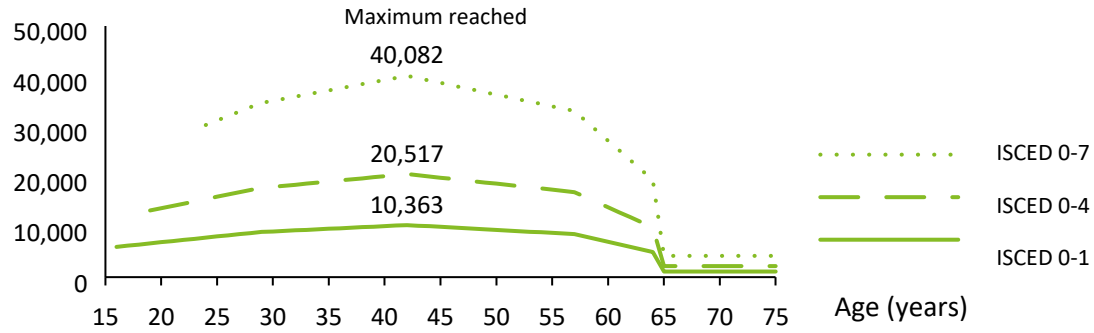


Level of taxes, fees, contributions and levies due to the state increases significantly and directly proportional to the increase of the level of education

Graphic 3.3.5 Evolution of the level of taxes, fees, contributions and levies due to the state depending on the occupational status and level of education (annual average amounts, (RON))

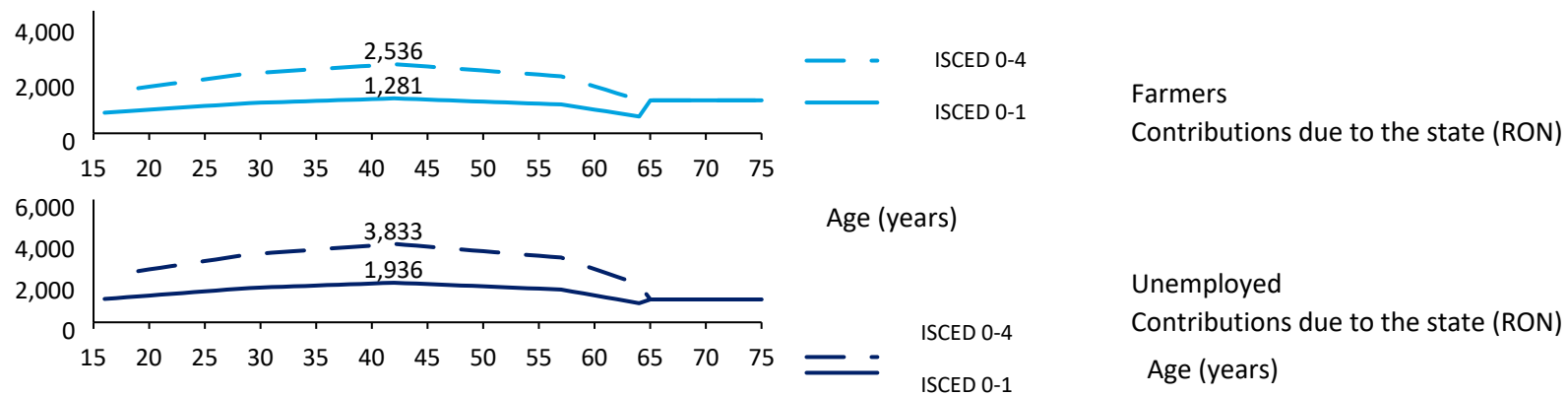
Employees

Contributions due to the state (RON)



Freelance workers in non-agricultural activities
Contributions due to the state (RON)





Source: *Coordinates of the standard of living in Romania – The wages and the population’s consumption, INSE 2021, Deloitte analysis*



Percentages afferent to taxes, fees, contributions and levies due to the state used in their estimation

Category of expenses	% fee	
Consumption expenses	Agri-food products and non-alcoholic beverages	9%
	Alcoholic beverages, tobacco	19%
	Clothing and footwear	19%
	Home, water, electricity, gas and other fuels	19%
	Furniture, endowment and maintenance of the home	19%
	Transport	5%
	Information and communication	19%
	Recreation, sports and culture	5%
	Education	5%
	Hotels, cafes and restaurants	5%
Expenses for food and non-consumed beverages	9%	
Production expenses	19%	
Fees, contributions, levies, taxes	100%	
Other monetary expenses	19%	



Taxes, fees, contributions and levies increase directly proportional to the level of study and depending on the occupational status – employees with higher education having the biggest contributions.

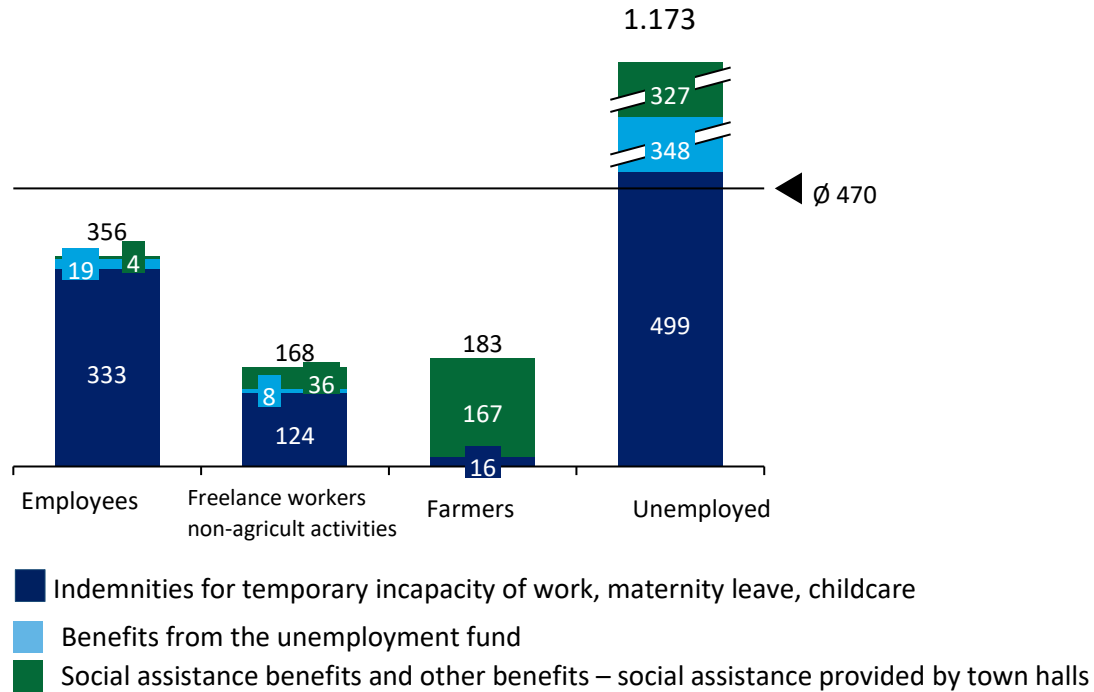
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The aid provided to one person after completing the state educational cycle through social benefits varies depending on the occupational status of the person, from ~170 RON per year for freelance workers in non-agricultural activities to ~1200 RON per year for unemployed people in 2020

Graphic 3.4.1 The aid offered by the state after the completion of the educational cycle except for social pensions, by occupational status, in 2020 (annual average amounts for a person, RON)

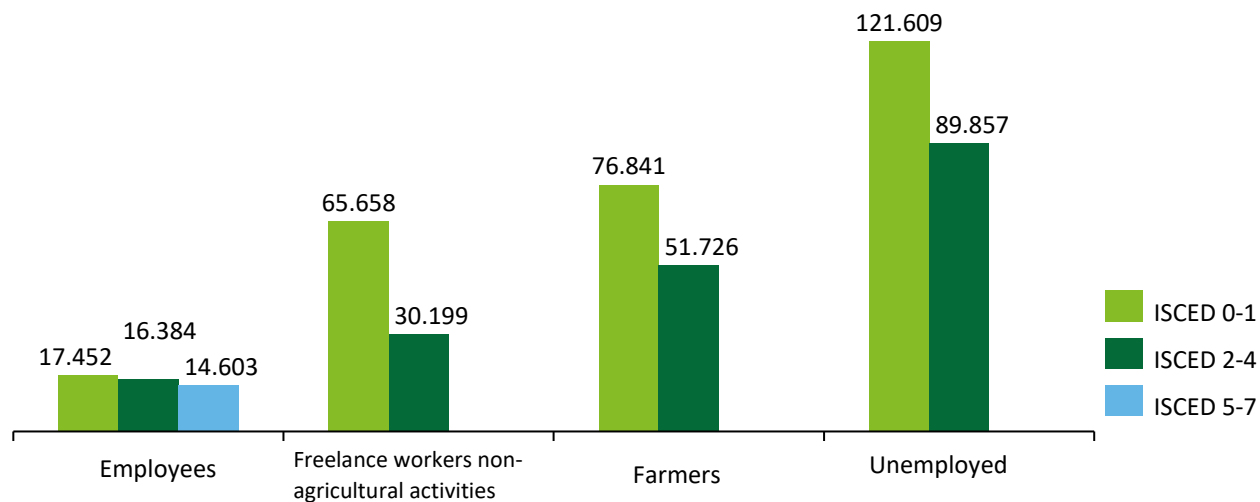


Source: *Coordinates of the standard of living in Romania – The wages and the consumption of the population, INSE 2021, Deloitte analysis*

Aid provided after the completion of the education cycle, received by employees consists mostly of indemnities for temporary incapacity of work, maternity leave, childcare, which are provided to them as a result of levies obtained from salaries.



Graphic 3.4.2 Aid offered by the state after the completion of the educational cycle, including the guaranteed minimum social pensions, per occupational status, depending on the level of education (average amounts per lifespan taken into account of a person, RON)



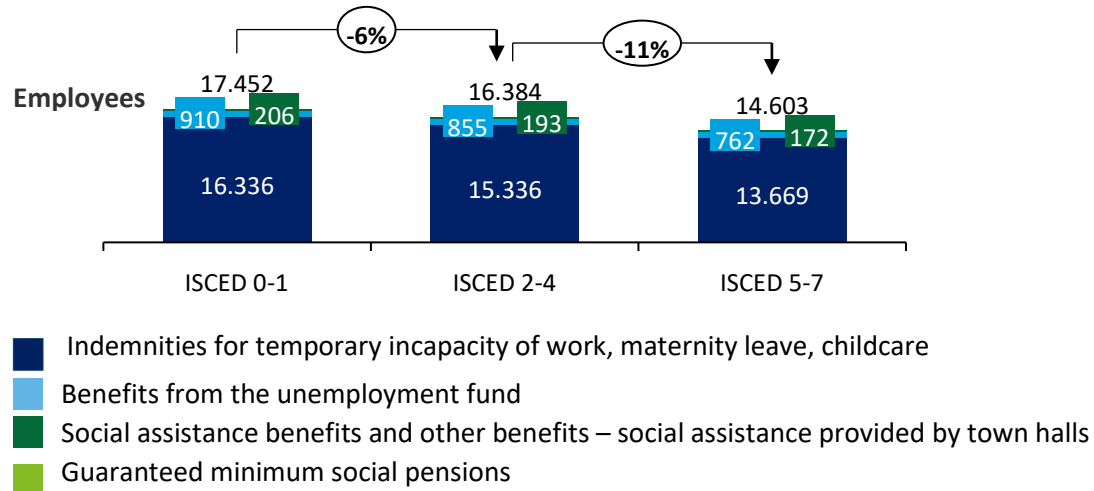
Aid provided by the state after the completion of the educational cycle is significantly bigger for the unemployed, farmers and freelance workers in non-agricultural activities compared to the aid provided to employees.

In addition, a significant decrease of the value of the aid can be observed as the person reaches the next level of education.



Guaranteed minimum social pensions represent a significant percentage from the total assistance provided by the state after the completion of the education cycle, over 75% in the case of freelance workers in non-agricultural activities and farmers and over 40% in the case of unemployed people respectively

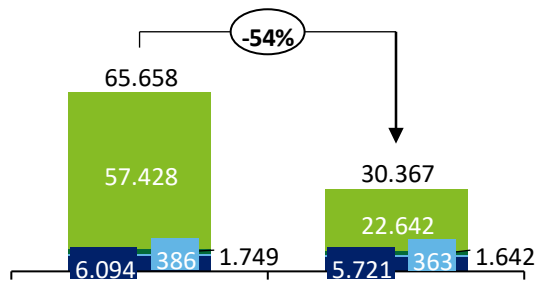
Graphic 3.4.3 Costs of the state after the completion of the educational cycle, including guaranteed minimum social pensions, per occupational status, depending on the level of education (RON)



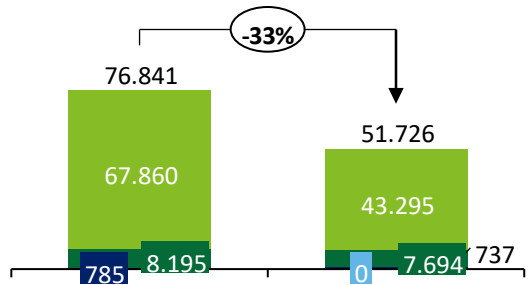
Aid provided by the state after the completion of the educational cycle evolves inversely proportional to the increase of the level of education, recording values between 6%-11% in the case of employees and 54% for freelance workers in non-agricultural activities. The significant reduction coming from the reduction of the assistance under the form of guaranteed minimum social pensions, due to the increase of wages and of the pension by default.

Source: *Coordinates of the standard of living in Romania – The wages and the population’s consumption, INSE 2021, Deloitte analysis*

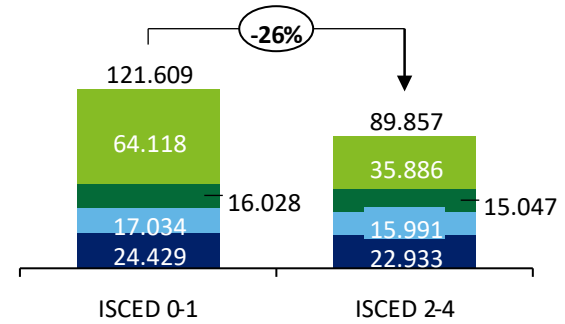




Freelance workers in non-agricultural activities



Farmers



Unemployed



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Glossary

Term

Definition

ISCED International Standard Classification of Education

Employee

The person employed with an employment contract, with fixed or not fixed duration in an economical or social unit regardless of the form of propriety, in exchange of payment under the form of a monetary salary or in kind and of other rights provided by law or established through the collective employment contract and which are subject to taxation, according to legal provisions. Here are included all people who carry out permanent, seasonal, daily, occasional or hourly activities, employees paid in the trial period, priests and pastors. The professional maternal assistant, home caretaker for elder people, personal assistant or professional personal assistant of a disabled person employed with an individual employment contract.

Freelance worker in non-agricultural activities

The person who carries out their activity in their own unit without using employment work. This status is attributed to people who carry out such activities in their free time and generally to any person who performs a job or an activity for which they obtain a non-salary wage even if the activities are random or without continuity

Freelance worker in agriculture

The person carrying out agricultural activities, working alone or with the other members of the household the agricultural land, orchards, vineyards, tending to raising animals, regardless of them being main activities or activities done occasionally and without continuity, but from which they obtain a non-salary wage.



Unemployed person

The person capable of work between 15 years old and the legal age of retirement who does not have a commitment for carrying out a socio-economical activity, is looking for a job (including their first job) and is willing to start immediately the work regardless of being enrolled or not in the National Environment Agencies, receiving or not an unemployment indemnity

Owner (entrepreneur)

The person carrying out their activity in their own unit (company, firm, shop, farm, office, cabinet etc.) and who has one or more employees. There are included those owners who are at the same time employees in their own company or they are holders of contracts of management location or concession who use employees

VAT

Value Added Tax

Social assistance benefits and other benefits

Monetary revenues from special assistance for disabled people, social assistance provided by town halls and other social assistance

Family benefits

Monetary revenues from child allowances and scholarships for pupils and students

Monetary benefits

The total of monetary expenses, regardless of destination

COICOP

Classification of individual consumption by destinations according to the EUROSTAT methodology



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Appendices

Appendix 1 – Consumption expenses (COICOP) % from the total consumption expenses, they do not include the consumption of agri-food from own resources – for human consumption

Occupational status	Agri-food products and non-alcoholic beverages	Alcoholic beverages, tobacco	Clothing and footwear	Home, water, Electricity, gases and other fuels	Furniture, endowment and maintenance of the home	Health	Transport	Information and communications	Recreation, sports and culture	Education	Hotels, cafes and restaurants	Insurance and financial services	Personal care, social protection and various goods and services	Total
Employee	27.26%	9.95%	9.20%	15.51%	6.95%	4.17%	8.24%	6.85%	2.89%	0.43%	1.50%	0.96%	6.10%	100%
Freelance workers in non-agricultural activities	31.46%	9.61%	7.92%	16.96%	5.77%	4.30%	7.13%	7.24%	1.58%	0.90%	1.02%	0.45%	5.65%	100%
Farmers	29.04%	11.41%	7.08%	21.38%	5.90%	3.67%	7.21%	7.74%	1.18%	0.26%	0.79%	0.39%	3.94%	100%
Unemployed	35.40%	10.99%	5.83%	17.83%	4.15%	4.15%	5.38%	7.07%	1.91%	0.56%	1.23%	0.67%	4.82%	100%
Pensioners	29.55%	8.00%	5.67%	20.22%	7.11%	10.22%	5.44%	6.44%	1.56%	0.11%	0.56%	0.44%	4.67%	100%

The table shows the percentage of each type of consumption expenses according to the COICOP classification methodology from the total consumption expenses for each category of occupational status.



Appendices

2.1 – Profile of Expenses - Employee



Expenses	%
Consumption expenses	50.10%
Agri-food products and non-alcoholic beverages	13.76%
Alcoholic beverages, tobacco	5.02%
Clothing and footwear	4.64%
Home, water, electricity, gases and other fuels	7.45%
Furniture, endowment and maintenance of the home	3.51%
Health	2.11%
Transport	4.16%
Information and communications	3.46%
Recreation, sports and culture	1.46%
Education	0.22%
Hotels, cafés and restaurants	0.76%
Insurance and financial services	0.49%
Personal care, social protection and various goods and services	3.08%
Expenses on food and beverages not consumed (remaining in stock, given to processing, given to animals, etc.)	1.58%
Investment expenses	0.50%
Production expenses	0.24%
Fees. contributions. levies. taxes	46.38%
Taxations on salaries	6.91%
Taxation on pensions	0.01%
Taxation on independent non-agricultural activities	0.00%

Social insurance contributions	27.98%
Taxation on home	0.38%
Health insurance contributions	11.09%
Other monetary expenses	1.21%
TOTAL	100.00%

The table showcases the percentage of each type of expense (including consumption expenses) from the total expenses.





Appendix 2.2 – Profile of Expenses - Freelance worker in non-agricultural activities

Expenses	%
Consumption expenses	82.65%
Agri-food products and non-alcoholic beverages	26.28%
Alcoholic beverages, tobacco	8.03%
Clothing and footwear	6.61%
Home, water, electricity, gases and other fuels	13.29%
Furniture, endowment and maintenance of the home	4.82%
Health	3.59%
Transport	5.95%
Information and communications	6.05%
Recreation, sports and culture	1.32%
Education	0.76%
Hotels, cafés and restaurants	0.85%
Insurance and financial services	0.38%
Personal care, social protection and various goods and services	4.72%
Expenses on food and beverages not consumed (remaining in stock, given in processing, given to animals, etc.)	3.20%
Investment expenses	0.93%
Production expenses	0.61%
Fees. contributions. levies. taxes	11.40%
Taxation on salaries	1.43%
Taxation on pensions	0.00%
Taxation on independent non-agricultural activities	0.15%

Social insurance contributions	6.36%
Taxation on home	0.88%
Health insurance contributions	2.57%
Other monetary expenses	1.21%
TOTAL	100.00%

The table showcases the percentage of each type of expense (including consumption expenses) from the total expenses.



Annex 2.3 – Profile of expenses - Farmer



Expenses	%
Consumption expenses	76.10%
Agri-food products and non-alcoholic beverages	22.44%
Alcoholic beverages and tobacco	8.82%
Clothing and footwear	5.47%
Home, water, electricity, gases and other fuels	15.33%
Furniture, endowment and maintenance of the home	4.56%
Health	2.84%
Transport	5.58%
Information and communications	5.98%
Recreation, sports and culture	0.91%
Education	0.20%
Hotels, cafés and restaurants	0.61%
Insurance and financial services	0.30%
Personal care, social protection and various goods and services	3.04%
Expenses on food and beverages not consumed (remaining in stock, given in processing, given to animals, etc.)	3.34%
Investment expenses	1.66%
Production expenses	5.06%
Fees, contributions, levies, taxes	12.93%
Taxation on salaries	1.59%
Taxation on pensions	0.01%

Taxation on independent non-agricultural activities	0.00%
Social insurance contributions	7.28%
Taxation on home	1.20%
health insurance contributions	2.86%
Other monetary expenses	0.91%
TOTAL	100.00%

The table shows the percentage of each type of expense (including consumption expenses) from the total expenses.



Annex 2.4 - Profile of expenses - Unemployed

Expenses	%
Consumption expenses	73.45%
Agri-food products and non-alcoholic beverages	26.33%
Alcoholic beverages. tobacco	8.17%
Clothing and footwear	4.34%
Home, water, electricity, gases and other fuels	12.34%
Furniture. endowment and maintenance of the home	3.09%
Health	3.09%
Transport	4.00%
Information and communications	5.26%
Recreation. sports and culture	1.42%
Education	0.42%
Hotels, cafés and restaurants	0.92%
Insurance and financial services	0.50%
Personal care. social protection and various goods and services	3.59%
Expenses on food and beverages not consumed (remaining in stock. given in processing. given to animals, etc.)	2.28%
Investment expenses	0.46%
Production expenses	0.24%
Fees. contributions. levies. taxes	22.63%
Taxation on salaries	2.94%
Taxation on pensions	0.00%



Taxation on independent non-agricultural activities	0.00%
Social insurance contributions	13.44%
Taxation on home	0.92%
Health insurance contributions	5.34%
Other monetary expenses	0.93%
TOTAL	100.00%

The table showcases the percentage of each type of expense (including consumption expenses) from the total expenses.



Annex 2.5 - Profile of expenses - Pensioner

Expenses	%
Consumption expenses	76.96%
Agri-food products and non-alcoholic beverages	22.74%
Alcoholic beverages. tobacco	6.16%
Clothing and footwear	4.36%
Home, water, electricity, gases and other fuels	15.56%
Furniture. endowment and maintenance of the home	5.47%
Health	7.87%
Transport	4.19%
Information and communications	4.96%
Recreation. sports and culture	1.20%
Education	0.09%
Hotels, cafés and restaurants	0.43%
Insurance and financial services	0.34%
Personal care. social protection and various goods and services	3.59%
Expenses on food and beverages not consumed (remaining in stock. given in processing. given to animals, etc.)	3.19%
Investment expenses	0.70%
Production expenses	1.06%
Fees. contributions. levies. taxes	15.76%
Taxation on salaries	2.26%
Taxation on pensions	0.43%



Taxation on independent non-agricultural activities	0.01%
Social insurance contributions	9.36%
Taxation on home	0.00%
Health insurance contributions	3.71%
Other monetary expenses	2.34%
TOTAL	100.00%

The table showcases the percentage of each type of expense (including consumption expenses) from the total expenses.



Appendix 3 - VAT rates used

Consumption category	Applicable VAT rate	Fiscal Code Article
Agri-food products and non-alcoholic beverages	9.00%	according to art. 291 para. (2) lit. e) (ORDER No. 3659/2018 of November 26, 2018) - normative act
Alcoholic beverages. tobacco	19.00%	the standard rate of 19% is applied, as it does not fall under any exception for the application of the reduced VAT rate according to Law no. 227/2015 regarding the Fiscal Code
Clothing and footwear	19.00%	the standard rate of 19% is applied, as it does not fall under any exception for the application of the reduced VAT rate according to Law no. 227/2015 regarding the Fiscal Code
Home, water, electricity, gases and other fuels	19.00%	the standard rate of 19% is applied, as it does not fall under any exception for the application of the reduced VAT rate according to Law no. 227/2015 regarding the Fiscal Code
Furniture. endowment and maintenance of the home	19.00%	the standard rate of 19% is applied, as it does not fall under any exception for the application of the reduced VAT rate according to Law no. 227/2015 regarding the Fiscal Code
Health	0.00%	according to art. 292 para. 1, lit. (a) of Law no. 227/2015 regarding the Fiscal Code - exempt from tax
Transport	5.00%	according to art. 291 para. (3), lit. (g), (h), (i), (j) of Law no. 227/2015 regarding the Fiscal Code
Information and communications	19.00%	the standard rate of 19% is applied, as it does not fall under any exception for the application of the reduced VAT rate according to Law no. 227/2015 regarding the Fiscal Code
Recreation. sports and culture	5.00%	according to art. 291 para. (3), lit. (f), of Law no. 227/2015 regarding the Fiscal Code
Education	5.00%	according to art. 291 para. (3), lit. (a), of Law no. 227/2015 regarding the Fiscal Code



Hotels, cafés and restaurants	5.00%	according to art. 291 para. (3) lit. e) (ORDER No. 3659/2018 of November 26, 2018) - normative act
Insurance and financial services	0.00%	according to art. 292, para. (2), lit. (a), lit. (b) of Law no. 227/2015 regarding the Fiscal Code
Personal care. social protection and various goods and services	0.00%	according to art. 292, paragraph 1, letter (i) the provision of services and/or supplies of goods closely related to social assistance and/or protection, carried out by public institutions or other entities recognized as having a social character (exempt from tax)
Expenditure on food and non-alcoholic beverages not consumed (remaining in stock. given in processing. given to animals, etc.)	9.00%	according to art. 291 para. (2) lit. e) (ORDER No. 3659/2018 of November 26, 2018) - normative act
Investment expenses	0.00%	according to art. 292, para. (2), lit. (a), point 6 (management of special investment funds)
Production expenses	19% and 9%	The reduced tax rate of 9% provided in art. 291 para. (2) lit. e) of the Fiscal Code applies to the entire economic chain from production to sale to the final consumer by all suppliers - the rate of 19% was used





Appendix 4 - Graphics

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