

## EDUCATION AND EMPLOYMENT

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### Abstract

*The article analyses the relationship between the education degree of the working force and employment. The recent studies show that the major causes of the contemporary unemployment constitute the absence of knowledge, aptitudes, qualifications supposed by the dynamics of the modern economic system. The work demonstrates that the education gathers a more and more important economic value because of the increase in the complexity of the productive process imposed by the necessity to provide an increasing volume of goods and services. In the pages below, it is shown that the weakly qualified workers are the worst victims of unemployment since the owners have a relatively high preference for the working force with general education and high technique.*

**Key words:** education, employment, human capital, skills, productivity.

### 1 Introduction

The process of creating goods and services which satisfies the human needs fundamentally depends on the volume of natural and human resources. Combined in variable proportions in time and space, the two factors of production allow the obtaining of quantities in utilities demanded by consumers' wishes. The things become more serious when, for several reasons, one of the two component parties of the productive process is in the state of unemployment obstructing, therefore, the reach of potential level of the economic system. When economy does not fully use the working force, not only do we lose quantities of goods which could be produced by workers made redundant, but there appear social problems determined by the lack of subsistence means of those who do not manage to occupy a position. That is why, the lack of occupancy of the human resources, namely, the unemployment, constitutes one of the most important problems that an economic system can confront with.

Along the time, the economists have tried to discover the cause of the phenomenon of unemployment without a unanimously accepted point of view. In the classical period of economic science they believed that the responsible for the lack of working places is the technical progress, the one which, providing new and performant machines, leaves the potential employees jobless, and therefore, without income sources. Later, they argued that the number of unemployed is due to the rapid increase of population, immigration and slowness with which the economic system produces work places. Then, there appeared the influential theories of Keynes which claimed that the unemployment of the working force has as a main source the insufficiency of the effective demand. Before him, A. Pigou considered that unemployment was due to the fact that the potential employees refused to provide an activity remunerated financially or in kind for purely subjective reasons. According to the author of the General Theory, the range of explanations referring to the

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discussed phenomenon was enlarged more including the syndicate legislation, the governmental interventions on the work market, social security, diverse subsidies and the politics of unemployment indemnity. However, in the last decades more and more researchers of the economic phenomena discover interesting correlations between the degree of education of the working force and the level of its employment.

## **2 Economic dimensions of education**

When the man is born, he represents, beforehand, a sophisticated biological amalgam, raw dough whose main trait is the capacity of modeling in order to handle his short passing through life. In order to exceed his minimal condition imposed by the DNA, this biological dough must be educated in view of its participation to the social game, the only one capable to remove him from his "natural", original state. The first dimension is offered to him fatally by birth, the other one, by the culture where he was born. The scientists of our days seem to have agreed upon the determinant idea for the individual are "construction" and "shaping" achieved through education and not through the original inheritance. Differently said, the man represents a cultural being built on capacities, talents, and potential availabilities, radically differentiated by the monkey, even if from the genetic point of view the discrepancies are rather reduced. Therefore, the one which transforms a complicated structure of cells into a veritable human being is education. That is why the general perception of the educational process is not always this one. The astronomy, art history lessons, the audition of a classical music concert, the reading of Shakespeare's work is part of our effort to acquire education. When we do not resort to such activities, we do not react through obvious judgments of the cost-benefit type but this does not mean that an important part of our education is not based on economic arguments. In time, people have noticed that their insistence to improve their conditions supposes, because of the poor environment in which they act, the adaptation and perfection of an injected behavior, to a certain extent, and not calculations.

One of the conclusions of those who directed their attention on the economic area was that the education process can be seen, in part, as a means of deliberate allocation of rare resources in view of increasing the ulterior personal satisfactions. In other words, education does not constitute a simple consume of resources carries out from esthetic, mystical or un-lucrative reasons but a calculated company that regards the obtaining of a net surplus, even if sometimes it becomes difficult to qualify. Before all, people need a general education which can facilitate their living, and more precisely, they must adhere to a set of beliefs, values and rules of behavior which can facilitate the minimal social coagulation. The transformation of the archaic, primitive society in modern compound supposes a citizen who knows to speak, read and write, the participation of each person to the life and administration (direct and indirect) of the "citadel" being tightly connected to such competences even if they suppose measurable additional expenses but difficult to calculate. The education does not only bring personal advantages to the person that owns it but is also produces positive "neighborhood effects" [Friedman, 1995, 103 ], taking into account that any member of the society prefers educated co-inhabitants rather than savage ones. At the same time, it produces mental improvements, teaches people to be subject to rules and authorities [Sennholz, 1987, 24] discourages smoking, stimulates the forming of civic virtues, cultivates the care for the maintenance of health, allows the voluntary control of births, offers motivations for the appreciation of literature or classical music [Becker, 1997, 22]. However, the education presents pragmatic finalities, namely it has an incontestable economic dimension. Many researchers of the economic phenomenon from the last half of the century noticed the fact that the economic bound of some nations such as Japan or Germany [Schultz, 1981, 240] or of the so-called Asian tigers would have proved

unimaginable without the contribution of the educational process. Other economists and sociologists argue that the appearance and development of the occidental world is based on technological progress, innovation, applied science [Rosenberg and Birdzell, 1989, 46-50] , [North and Thomas, 1988, 2] , all representing, for the most part, the effect of education extension.

Recent studies show with sufficient clarity that education allows the increase of the productivity of rare resources processing, being able to be seen as a specific investment; it presents advantages since it provides the holder of the working force abilities, knowledge, experience and develops the entrepreneurial aptitudes. "The re-education" increases the inter-sector mobility, offers the possibility to individuals to adapt to changes from the economic system reflected through the modifications of the work market. The education makes the effort of the more productive employee and gives the chance to obtain a higher income. The fact that it acquires more and more an economic value is also demonstrated by the fact that, for example, the universities are more connected to the work market renouncing little by little the illuminist, encyclopedic original character, tending towards the status of business schools. The educated man adds to his biological dot new capacities and knowledge becoming a more and more performant "instrument" of production. In this manner, he has more opportunities to become employed, to produce money and services appreciated by others and to obtain in their exchange the expected utilities. Shortly, the chance to improve the personal condition depends on his own productive effort, increased effort in the efficiency through the education he disposes of.

### **3 Education and employment**

The employment of the individual in economic activities, provider of income, is in strong connection with the level of education since it means better opportunities on employment. For example, the range of options from the market place for an illiterate person is proved to be much more limited than for someone who knows how to write and read. In fact, nowadays, the degree of sophistication of the majority of production processes obliges anyone to have such competences, the other alternative being unemployment. An illiterate cannot be employed as journalist, teacher, medical doctor, programmer or architect; he cannot be even a gatekeeper in the university if he cannot read somebody else's name from an access certificate. If he wants to obtain income by occupying a workplace he will have his options much more restrained. Thus, it's no wonder that the statistics reveal a high rate of unemployment within those with precarious education, although writing and reading do not represent the only educational baggage for a possible employee. Against this argument we could bring evidence from fields which suppose a modest education (agriculture, constructions, mining) but in the performant economy these activities suppose the use of machines, devices whose maneuvering is made after the study of the technical books or instructions to use; or, such a situation requires at least the knowing how to read. The illiterate can employ relatively easy in an archaic agriculture but not in another one highly mechanized; one more time, the range of options is significantly reduced. It is very true that the education of the working force does not consist in the science of writing or reading but, for most of the productive activities (and not only) it constituted the necessary minimum. An educated working force requires very many learned aptitudes acquired in professional schools, high-schools or universities. Some of them are learned through training at the job in the immediate neighborhood of a master but most of them are obtained not only through oral communication but by using them in writing and reading. In the absence of such a faculty, the possibility of absorbing knowledge is significantly reduced and the chance of the potential employee to acquire the necessary resources for providing an activity becomes insignificant.

Unlike the weakly prepared working force, the one which benefits from a high degree of education obtains higher incomes and a bigger occupational stability [Mincer, 1991, 2]. The justifications of such a situation can be multiple. Without a doubt, any type of education (especially the technical, professional one) increases the degree of productivity of employees giving the possibility to the employees to increase the economic performances of their own companies. But, the accumulation of specialty knowledge, aptitudes, abilities or capacities supposed by the occupation of a working place obliges to educational investments, more precisely, the spending of resources with the acquisition of the reminded competences, or, these resources, as any other, are rare. In other words, any company will encounter a limited number of individuals having the knowledge and aptitudes necessary to cover a position in a company. Many times, even the company spends funds for the training of the own employees. When there appear problems of restriction of the market type or a recession, and the respective economic entity must adjust the production in order to remain profitable will have the tendency to renounce to the personnel (since the salary expenses are among the highest in the structure of the production cost), but this personnel will be, firstly, from the category of those deficiently qualified. When the owner trains his employees in order to become more performant, he makes an investment in the human capital, investment which must be recuperated for a period determined in time. The bigger the qualifications, the bigger the investment and the period of recovery will become longer. In order to recover the resources invested in training the personnel, he is obliged to keep them in production for a longer period of time. If he makes an employee redundant, he would register expenses that will never be recovered. That is why, when the economic conjuncture gets worse, the companies renounce the working force weakly qualified and maintain the one in which they made investments. This is another reason why those with precarious education are more exposed to the risk of losing their work place. Moreover, they obtain employment with more difficulty since the managers are aware that in order to make them more productive, they must lose the rare resources with their qualifications or, such an investment, as any other is subject to the risk and, many times, it is not achieved. A company which employs an individual with precarious professional training must lose time, money and other resources in order to transform the respective employee into a performant production factor, but it assumes an investment risk. When it prefers to contract a worker with high education (general and professional) the situation is no longer reproduced since the respective risk assumed by another company (if it prepared the potential employee) always exceeds the one for the workers with precarious training but qualified at the work place. As a result, the chance of the latter to find a workplace is much smaller. Something like this happens since the managers, like most people, have a preference for the present safer than for the more uncertain future even if they assume the risk much easier.

The employers' preference for the better educated must not be generalized, since in any economic activity there are jobs which do not suppose special qualifications. However, these jobs are marginal and effective only when the costs supposed by them (represented, especially by afferent salaries and taxes) are situated under the level of incomes brought to the business; or, the salaries are founded on the marginal productivity of the work. The marginal jobs bring marginal incomes in decreasing sequence but disappear when the situation on the company market becomes worse. In the case when the economic environment aggravates, the marginal jobs (of small productivity) are the first ones to disappear since they are the first which become unproductive. When a company is confronted with a difficult situation, the first persons which become redundant are, generally, the last employees (with less experience) or those which occupy the critical jobs for the survival of the business. Or, the most important for a company are the high productivity jobs (occupied by the well-prepared workers) and not the peripheral ones occupied by the personnel with precarious education. That is why, the first receive much

easier their jobs while the latter become easily victims of unemployment. More than that, the personnel with little education give up a job more easily than a qualified worker. For the employee with many qualifications, the personal investment in his own human capital constitutes a recoverable cost on the long term which obliges him, in order to capitalize the allocation of resources with his own training, to find stimulants in maintaining the job and not in its frequent change (which would transform him into an unemployed person for certain period of time). Moreover, his aptitudes and knowledge acquired through the personal investment in education makes him more specialized than an individual with modest qualifications; but there is a risk of the specialization which determines an employee to have a more inelastic request for the job proposed on the market. It may seem paradoxical, but many times a specialist in computers has a more reduced range of choosing the job than a poorly qualified individual who can provide physical activities, with minimal training, in the agricultural sectors, mining or constructions. The former has more reasons to prefer the stability in the occupied job, while the poorly qualified worker can change his workplace relatively often (with longer or shorter periods of inactivity) without enduring major losses since his expenses with the qualification were minimal, the investment risks in their own education being more reduced. An engineer in computers loses more if he renounces a job from his field and becomes a real estate agent, while a worker with precarious education cannot afford investment costs in human capital when he leaves the construction field and goes to work the earth. The change of the job supposes efforts to readapt the qualifications and personal knowledge, namely costs with the change of the human capital destination (first of all, of the technical, specialty one). These expenses become higher and higher as the education received by the worker is more specialized. This is one more reason why the two individuals with different education support their inter-professional migration and therefore, are affected in a particular manner by the unemployment phenomenon.

A serious reason why the degree of education is in direct proportion with the employment derives from the increasing complexity degree of the process which creates goods and services. As time has passed, the production activities have become more and more performant through the use of a more and more sophisticated physical capital but something like this could only happen in the conditions of a working force highly more and more qualified. Moreover, the increase of the degree of sophistication of machines, devices, installations (imposed by the necessity of obtaining a higher production from the qualitative and quantitative production) required special abilities, knowledge and abilities for the designers or inventors, which helped the economic activities be more connected to the educational system. The use of machines, installations or more complicated devices has obliged the working force to use new knowledge and qualifications, obtained through bigger investments in the training field. The chance to occupy a working place depended on the increase of the volume of resources allotted to the education improvement; on the contrary, the probability of the inactivity has increased vertiginously. The dynamics of modern economy has made the optional education for several decades become obligatory nowadays. Thus, the use of the computer constituted a requirement of the highly qualified jobs in the 70s but has become a part of the general education today. If three decades ago they were absolutely necessary in very narrow fields, such competences have become minimal aptitudes required by the employers at the interviews. In other words, in a relatively short period of time, the degree of qualification imposed for obtaining a job has increased a lot but its increase implies a higher education. Today an individual can become much easier unemployed if he does not learn to use a personal computer, in comparison with two-three decades ago. This is how we explain the fact that, while the time passed, the increase of the sophisticated degree of the economic system went hand in hand with the extension of the schooling duration, the second being an obligatory premise for the first. In such conditions, the absence of general and professional education would transform the working force into an

unusable resource resulted from its incapacity to adapt to the economy requests. Here we discover both the causes of the extension of the obligatory education duration and also the higher and higher percentage of the educational expenses in the Gross Domestic Product.

#### 4 Conclusions

The logical arguments determine us to claim that, between the education of the working force and its degree of employment, there is a positive relationship. This thing is due to the fact that the employers prefer, usually, the well qualified workers both because of their increased productivity and from their desire to avoid the risks that result from the investment with training the poorly qualified one. The preference of companies for well educated people is due to the increasing degree of complexity of the modern productive process, based more and more on special knowledge and abilities. The extension of markets makes the process of creating income become more and more specialized and founded on a higher and higher volume of particular knowledge. In such conditions, the working force must acquire a higher and higher degree of particular knowledge. In such conditions, the working force must acquire a higher and higher degree of qualification imposed, in its turn, by a more and more performant education. This is one of the main reasons why the economic development of the modern society went hand in hand with the extension of the schooling period, with the extension of specialized education and the increase of the volume of public and private resources allotted to the field. More than ever, the educational process is connected with the economic one, thus offering the possibility to increase the people's welfare. The well-educated working force presents a comparative advantage indisputably reflected, on the one hand, through a superior remuneration, and on the other hand, through higher opportunities to find and occupy a job. The logical demonstration but also the empirical evidence show that, most of the times, the progress on the educational scale increases the chances of employment or reduces the risk of unemployment.

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