PUBLIC EDUCATION, MARKET, AND HUMAN CAPITAL FORMATION

Bogdan Glăvan, Flavia Anghel, Alina Avrigeanu*

Abstract

Government's involvement in the formation of human capital, public schooling in particular, has been amply criticized by a number of authors. It is nevertheless true that individuals can enhance their productivity to some degree if they accumulate human capital. But the process of human capital accumulation is costly, as any other investment.

In this article we intend to extend the criticism to central planned education by focusing on the role education industry plays in the production structure, an issue virtually untouched in previous research.

Keywords: spontaneous order, human capital, public education, capital misallocation

JEL Classification: D20, I21, I28

Introduction

Government's involvement in the formation of human capital, public schooling in particular, has been amply criticized by a number of authors. For example, Marks (2005) synthesizes the two main weaknesses of government intervention in education: the lower quality of monopolistic services and the bias in teaching. For a wider refutation of arguments for public education see Rothbard (1999).

In this article we intend to extend the criticism to central planned education by focusing on the role education industry plays in the production structure, an issue virtually untouched in previous research. We will argue that education policy is in fact just an example of industrial policy and that all the weaknesses of the latter (Glăvan, 2008b) can be found also in the former.

Public education and the development of human capital

The role public education plays in human capital development has been analyzed in Glăvan (2008a). It is true that individuals can enhance their productivity to some degree if they accumulate human capital. But the process of human capital accumulation is costly, as any other investment. This cost reflects

* Bogdan Glăvan is Professor of Economics at the Romanian American University in Bucharest. E-mail: bogdan.glavan@gmail.com

Flavia Anghel is Associate Professor of Risk Management at the Romanian American University in Bucharest. E-mail: flavia.anghel@gmail.com

Alina Avrigeanu is Associate Professor of Operations Management and Project Management at the Romanian American University in Bucharest. E-mail: alina.avrigeanu@gmail.com

the value of workers' time and effort associated with learning, instructors' labor and knowledge, and the rest of the complementary resources used in the formation of human capital. These resources are valuable because they can be employed alternatively in the production of other goods demanded by the public.

The most important question the education system has to answer is what type of human capital, in what quantity and for what price it is needed in the economy. On the free market, the individual is the sole owner of its human capital and he/she is free to choose what to do with his/her labor and skills. Each individual is interested in accumulating additional human capital as long as he/she expect the marginal benefit will exceed the marginal cost of investing in his education. What is true for the "consumer" of education is also true for the producer of "education". Entrepreneurs engage in the production of education and start offering specific training programs if they judge individuals' demand for such programs to be sufficiently intense. Competition among private suppliers of educational services leads to the efficient use of society's scarce resources and challenges entrepreneurs to provide exactly the services people need in order to accumulate human capital in the quantity and of the quality required by the market. Of course, it does not mean that the production and distribution of human capital will be flawless on a free competitive educational market. Occasionally, even private providers of education will fail to anticipate properly the magnitude and composition of human capital demanded by the public. Yet error is inescapable in human affairs. Competition among different entrepreneurs will eliminate the less able entrepreneurs and keep the number of such errors to a minimum.

At the present, human capital formation is not considered an ordinary economic investment. Because education is considered a public good, governments have socialized the provision of education throughout the world. State intervention range from issuing compulsory attendance laws and limiting entry into the teaching profession through certification and other bureaucratic procedures, to supporting public schools and prohibiting any private initiative in this field.

The process runs as follows. Each of us pays taxes. The state uses a part of the money collected through taxation to subsidize education. In principle, the system should provide the young generation with the proper human capital for increasing the productivity, so that to increase the future income in order to remunerate the young specialists and the elderly, who originally financed the whole process. In reality, the system malfunctions are obvious. The inferiority of government controlled education results from several problems.

The calculation problem

The fundamental problem with public education derives from the impossibility of calculation in a public property system. Following Mises (1990), Rothbard (1970, p. 825-828) pointed out that any puctual decision to socialize education introduces an island of calculational chaos in the market economy.

Under public property of resources employed in education, meaningful prices cannot emerge and individuals' preferences for accumulating human capital cannot be rationally fulfilled. State intervention on education falsifies the true cost and return of various educational services. In a socialized system of human capital formation, one cannot know what precise investment in human capital is profitable or not. As a consequence, the question in which exact direction human capital investments need to be channeled cannot be answered accurately.

The incentive problem

A second problem with public education is that government bureaucracy has poor incentives to adjust the provision of education according to the market participants' preferences. Put it differently, this system does not encourage good teaching. Innovation and improvement in quality will not be the main priority of public officials. Rather, the directors of government-owned (or sponsored) institutions will pursue their own objectives and seek to satisfy the political demands of education policymakers.

> Instead, they pursue political, ideological, and personal objectives. As a result, the government may provide services to consumers that are valued at less than their cost of production and fail to produce more highly valued services. The needs of some groups, such as the disadvantaged, are easily neglected. (Harrison, 2005, p. 198)

A further issue is that public investment funding distorts the functioning of the capital market and falsifies the time preference of individuals. People will be tempted to overinvest in human capital, disregarding the opportunity cost of their decision. They will spend more time and energy trying to obtain diplomas and various formal qualifications and less time working. Moreover, a process of crowding out will put private (unprivileged) entrepreneurs in the position of being unable to undertake investments necessary to provide consumers with the education they really desire, because it becomes artificially relative (to the state-provided education) expensive.

We should also keep in mind that people lack incentives to conserve or increase the value of resources when they do not own (have a private-property right over) these resources. Education policy invites corruption and rent seeking. Once the government is in the business of providing support to certain schools, the incentives change, leading to perverse outcomes. It becomes profitable for private actors to withdraw resources from productive educational employment and channel them into the competition for political favors. Thus, such an institutional setting leads to a perverse competition among the providers of educational services.

The information problem

> Under public provision there are no price signals to elicit and confirm consumer preferences and provide the incentive to meet them. Further, there are no direct feedback mechanisms to show

whether decisions are correct or to improve performance. Often the government never finds out whether it provided the right types and amount of education. (Harrison, 2005, p. 198)

It is vain to offset this informational insufficiency by using various surrogates such as asking students to deliver information about the quality of teaching, etc. Without a market test it is difficult to interpret properly the data contained by statistical research. Only through voluntary buying and selling on the market, that is, through demonstrated preferences, is possible to find the importance students (or their parents) attach to different aspects of education.

In practice, public education lead to excessive costs, overuse of educational resources and misallocation of human capital. Too many of society's resources are allocated to schooling and general training. In a state-sponsored high education system (which is supposed to provide individuals with more specific human capital), the opportunity cost of engaging in education is also artificially lower. As a consequence, too many individuals are stimulated to become "specialists" or "experts" in some field or another. The state interference in education induce individuals to invest more heavily in the accumulation of subsidized human capital. This process has nothing in common with economic efficiency and welfare maximization, because, as Rothbard (1970, p. 820) observed, "since there is no pricing, and therefore no exclusion of submarginal uses, there is no way that the government, even if it wanted to, could allocate its services to their most important uses and to the most eager buyers. All buyers, al uses, are artificially kept on the same plane. As a result, the most important uses will be slighted".

Given that policymakers are not omniscient, they cannot know ex ante the optimal pattern of investments, and they consequently cannot improve the market outcome. As a popular and condensed adage strongly supported by empirical evidence tells us, the "government cannot pick winners." Indeed, the history of interventionism and dirigiste policy is replete with wrong decisions that wasted resources in bad investment projects, creating inefficient industries and social unrest. In the human capital production system, government intervention may lead to the development of wrong educational programs, qualification, even universities.

The (dis)order of human capital on the (not so) free market

The capital structure consists of various capital resources arranged in such a manner so to produce an income. This structure continuously shifts as the market demand changes.

A change in the preferences of consumers triggers a reconsideration of the position of certain capital goods within the production structure. This reconsideration is based upon economic calculation, in an attempt to anticipate future revenues relative to different uses of respective capital inputs. Obviously, as a result of changing preferences, the new expected income will be different from the income anticipated at the moment when these capital goods were integrated in the production structure. Therefore, capital goods should be removed from their old employment places into new uses. But one of the fundamental features of capital is complementarity. A capital good is able to produce income only if it is employed with other inputs according to a production plan. As a result, shifting the position of a particular capita good will be accompanied by a reevaluation of complementary inputs.

Investing in human capital is a very difficult decision, because the fruits of this investment will not come soon, in most cases. Time is a very important variable in the equation. During the period which elapses from the moment of deciding to accumulate a certain category of human capital to the time when this capital will be integrated in the overall economic structure and its services will begin to bring income to its owner, one can witness significant changes in the consumption preferences. To the extent that these changes are not properly anticipated, they will generate painful shifts in the economy. Some capital goods will depreciate in value, and this will trigger a similar development in the realm of human capital (which is complementary to physical capital). The fall in the value of human capital can be drastic, in some cases, given its high specificity. A good explanation of the disorder that may affect human capital structure can be found in Rogojanu (2000). As the author argues, we can explain this phenomenon in more detail by assuming the existence of two types of human capital: productive (P) and educative (E). The latter is a higher order input, because it participate to the formation of the former. If the value of P human capital declines (because of, let's say, a shift in public preferences to more leisure), the value of E human capital falls also.

This phenomenon is illustrated by the situation of Romania. In the '70-'80, the economy was oriented toward heavy industry – constructions and steel manufacturing – which prompted the education system to produce to a larger extent specialized human capital in this field (engineers of various qualifications).[1] At the beginning of the next decade, consumer preferences revealed, through a now liberalized price system, an increasing appreciation for consumer goods. Inevitably, some industrial complexes went into bankruptcy and the value of associated human capital P declined. The falling value of human capital P will affect the value of human capital E. Because of internal rigidities, the real importance of various branches of E industry has remained hidden. Eventually, the weaknesses of the relative distribution of human capital became obvious. This prompted the reorientation of the education system in order to produce more human capital P specialized in business and law.[2] Of course, the new shape of the education industry is far from being perfect. The problem is, though, if the E Industry can be organized in such a manner to react promptly to any future changes in the public's preferences.

---

[1] During these years, universities became popularly known as "engineers factories".

[2] The magnitude of this shift has prompted some people to call the impressing number of emerging law schools "lawyers factories".

Conclusion

The state intervention in human capital formation is just a particular case of industrial policy. It leads to a broad range of negative outcomes: standardization and lack of variety in educational services, political-induced discrimination (that may take the form of affirmative action, for instance), monopoly prices for education – often paid via taxes etc. Calculation problems, informational failures and incentives issues prevent the state from allocating the human capital efficiently. In order to have a rapid adjustment of the education system to the requirements of different industries, we need to have a free competitive, private property-based education sector.

References

Glăvan, Bogdan. 2008a. "Brain Drain – A Management or Property Problem?", *American Journal of Economics and Sociology* 67(2).

Glăvan, Bogdan. 2008b. Coordination Economics, Poverty Traps, and the Market Process A New Case for Industrial Policy? *Independent Review* 13(2)

Harrison, Mark. 2005. "Public Problems, Private Solutions: School Choice and its Consequences", *Cato Journal* 25(2): 197-215.

Marks, Benjamin, 2005, Archipelagos of Educational Chaos", *Journal of Libertarian Studies* 19(2): 87-102.

Mises, Ludwig von. 1990. *Economic Calculationin the Socialist Commonwealth*, Auburn, Ludwig von Mises Institute

Rogojanu, Cosmin. 2000. "Distorsiunile temporale ale alocării relative a capitalului uman", in *Relansarea creşterii economice în România*, pp. 348-350.

Rothbard, Murray. 1970. *Man, Economy, and State: A Treatise on Economic Principles*. Los Angeles

Nash Rothbard, Murray. 1999. *Education. Free and Compulsory*.
Auburn: Ludwig von Mises Institute.