

# Economics of Education: Examining from Different Perspectives

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## ABSTRACT

To ensure sustainable economic growth and development, human capital is an essential factor of production that should be addressed at least as much as physical capital. Human capital is essential for better regulation, planning, and implementation of physical capital. Economic growth and development are the cause as well as the result of education. As the quality of education increases, economic growth will increase, and the effect of increasing economic growth will be reflected in the education sector. These two values not only positively influence each other, but also feed each other. In this study, which started with the definition and importance of education and education economics, the research continued by explaining the economics of education in detail through various items. It is aimed to examine the economics of education, the historical dimension of education economics, education supply-demand, education in the labor market, and essential education indicators using country data. Human capital is necessary for realizing sustainable growth and development in the long term, and to ensure this process is effective, human capital training can only be achieved through education. It is necessary to invest in quality education. These investments return by increasing the country's social and economic welfare in the long run. It was observed that education investments in OECD countries and Turkey have increased significantly in recent years. Education should be increased both quantitatively and qualitatively. More effective and efficient educational policies should be determined and implemented without compromise.

**Keywords:** Education, Education Economics, Education Supply and Demand, Education Indicators and Education Investments.

**Jel Codes:** I2, I210, I230

## INTRODUCTION

According to Aristotle, education is a tool for the individual to acquire moral behaviors; according to Cicero, it is the discipline of the human mind; according to Rousseau, everything that is not innate and acquired by adult individuals; and according to Descartes, it is the process of learning how to use the mind correctly (Tezel, 2010).

Education investments are significant because the benefits are both for the consumer and society. The share allocated to education in national income is generally accepted as an important indicator in determining a country's development level or in the classification of developed, developing, and underdeveloped countries. There is a powerful positive relationship between the welfare of the country and the financing allocated to education.

The level of economic and social development in that country increases thanks to the positive external economies that occur with the increase in the financial resources allocated to education and, thus, the education level. Funding for education is the key to sustainable economic growth and development. When the theories about the importance of human capital are evaluated, it will be seen that the adequately educated workforce comprehends technological innovations faster, thus leading to knowledge-based production by making new technological inventions and contributing to the rapid increase in the national product (Çalcalı, 2019). With the workforce's training, labor productivity is expected to increase; therefore, national income will increase. When the expenditures made on education are considered within the investment expenditures, it has an increasing effect on economic and social development due to the increasing returns in the long term.

The state spends the public revenues it collects from the people on total public goods and services (expenditures for national defense and justice) and semi-public goods and services (expenditures for other services such as education and health). As a requirement of the social state principle, much more importance and resources should be transferred to education to include the whole of the people in the countries.

Education is behind economic structuring, technological development, employment, growth, and development. The introduction of the internet and the new understanding of the internet-based economy also require higher knowledge and high technology, and education is the way to do this (Erol, 2009).

One of the most important indicators of the development of countries is education. The importance given to education is understood by the amount of financial resources that countries allocate to education. The greater the funding source of education, the higher the education quality is expected to increase. Education financing is the process of obtaining the necessary financial resources to realize education services.

### **The concept of education**

In this section, firstly, the definitions related to the concept of education and then the importance of education are discussed. It is not easy to define education because the definition is different in different disciplines. However, specific definitions can be made.

### **Education definitions**

Education is a necessary planned and directed process to improve the knowledge, skills, and behaviors of individuals. This process includes teacher or trainer guidance, learning material, and learning activities. Education can take place in schools, universities, courses, or various learning environments and aims to contribute to the personal development of individuals. Different definitions of education can be as follows (Oltular et al., 2020).

It is the work of gaining knowledge and skills, growing up, and developing in a specific field of science. A synonym for education is upbringing. It is the process of helping new generations acquire the knowledge, skills, and understanding necessary to take their place in social life and develop their personalities. According to Plato, education gives the body and soul the beauty it is capable of.

- It is a deliberate acculturation process.
- The generation has grown up in a society, giving its ideas and feelings to the generation that has just begun to grow up (Ziya Gökalp).
- It is raising people in line with specific goals (Nurettin Fidan).
- Durkheim looks at the concept of education from a social perspective. Education is an influence applied by the adult generations to those who are not ready for social life. It is the socialization of the non-social generation (E.Durkheim).
- Education is the process of shaping the minds of individuals in a way that will enable them to establish a moral, social order on earth.
- It is raising people according to particular purposes (Nurettin Fidan).
- According to the realist understanding, education prepares the new generation of individuals for adult society by transferring their cultural heritage.
- According to idealism, education is the unending process of the original and conscious human being's uplifting adaptation efforts to God.
- According to the pragmatist understanding, education educates individuals through rebuilding their lives.

- According to Marxism, it is the process of educating human beings in a multi-faceted manner, controlling nature, and raising it to produce and change it.
- The mark of the educated mind is to be open to any thought before accepting it (Aristotle).
- If you treat a person as he is, he will stay. If you treat a person as he could be, as he should be, he will become as he could be and should be (Goethe).
- Investing in education pays the best interest (Benjamin Franklin).
- Education is listening to anything without losing composure or self-confidence (Robert Lee Frost).
- Education is not preparation for life but life itself (John Dewey).
- It is a regular interaction to provide specific changes in human behavior regarding knowledge, skills, understanding, interest, attitude, character, and personality traits that are considered necessary (Yıldırım).
- Educating the mind without educating the heart is no education (Aristotle).

### **The importance of the concept of education**

While education was previously perceived as preparing for life and acquiring a profession, it is now perceived differently. Seeing the differences that knowledge reveals in people has increased the importance of education even more.

Education is equipping the individual with the necessary knowledge, behavior, and abilities to be in the place he deserves in society. Education, which is a process of changing behavior, is a process in which the behaviors to be gained by individuals are determined in advance and how they will be gained (Ünal, 1996). Education is a service, the importance of which does not change whether the state provides this service or private institutions, and it is also the best investment for those who receive education and their families (Erol, 2009).

### **Why is education important?**

Education enables individuals to realize their personal and professional potential by providing them with knowledge and skills. Education supports social development and contributes to economic, cultural, and social progress. Educated individuals can generate innovative ideas, support technological progress and offer solutions to social problems. A good education gives individuals wider employment opportunities and advances their careers. Education can reduce social inequalities and balance the inequality of opportunity between different social segments. Education is one of the cornerstones of a democratic society. Educated individuals can participate more effectively in political processes and make informed choices.

In addition to these essential reasons for education, its importance can be listed as follows (Oltular et al., 2020).

- Maintaining a happy and quality life
- Progress of society, economic prosperity, and national development
- Increasing productivity and efficiency and enabling more productive societies
- To train the workforce needed by the economy
- To increase the local and universal knowledge levels of individuals
- Improving income distribution by ensuring equality and justice

As a result, the primary purpose of education is to prepare the person for social roles and to leave a better future for herself and the next generations by improving herself and, therefore, the society in which she lives (Tezel, 2010).

### **Education economics**

Education economics is a field that studies and attempts to understand the economic effects of education. Education refers to the training of the workforce required by the economy. Education economics, which is the branch of science that reveals the formation of the educational cost of individuals, establishes the relationship between education and the economy, examines the decisions and behaviors of events and people, and applies economic findings and rules to education, is an essential cornerstone for the better future of people and societies as well as for governments to achieve their goals in the development of the country. Education economics researches how the economic value of education should be measured, how to use the resources to be used in education efficiently and effectively, how to plan all expenditures in the education sector, and how to finance these expenditures. In addition, education economics attempts to reveal the relationship between economic development and the knowledge and skills acquired by individuals within the social structure (Carnoy, 1989). The relationship between education and the economy has been examined in many ways using different methods. Recent studies have begun to change the sense attributed to education and economy. While education given to people in the past was aimed at improving people's abilities, education in recent times is in the direction of education that prioritizes people's income growth (Ercan, 1998). Regardless of the contribution of education to economic development, whether all or some of the expenditures made in this field are considered investments, each effort to expand education and training activities and make them better quality is significant and valuable. Every resource that can be obtained for educational expenditure is a valuable step toward improving the quality of education. As the economy contributes to education, its direct and indirect contributions to the economy are significant. Although education and economics belong to two separate disciplines, their mutual interaction makes these two concepts a whole. Providing finance to cover educational costs and using this finance rationally requires knowledge of economics. Education economics examines educational issues and activities by combining them with economic principles and analysis and uses economic theories and methods to understand the effects of education spending. The topics examined include the effectiveness of education policies, teacher salaries, economic returns on education investment, quality of education, and inequality in education. Education economics seeks answers to the following questions:

- How does investment in education contribute to economic growth?
- How does the productivity of educated individuals increase in the labor market?
- What are the ways to use education expenditure effectively?
- What is the potential of educational policies to reduce social inequalities?

What is the relationship between student performance and teachers' salary? Education economics is essential for both academic research and governments and policymakers to understand and optimize the effects of education policies. Education can also be defined in economic terms in various ways. Education is economically good. It has the feature of being a fully corporate and semi-institutional property. However, education can be considered a compulsory consumer good (Grant 2017). Education is an activity that increases individual income and expenditure. Although educational services are provided free of charge by the state for a certain period, they include individual cost items. With the completion of education, income also increases. These effects can be evaluated on a microscale. Education can be evaluated in the macro dimension, which increases national income. Because the increase in knowledge and skills of individuals will also be reflected in production, it will lead to an increase in production and its transformation into a more efficient and effective one. Education in Turkey is one of the essential functions of the state, such as justice, security, and health, and is carried out under the state's control and supervision. The fundamental way of realizing economic growth and development depends on realizing economic relations with the supply and demand elements of education on a healthy basis (Tansel and Bircan, 2006).

## Why education economics matters

The importance of education economics plays a significant role in understanding the complex relationships between education and the economy and in evaluating the effects of these relationships on development. Education economics starts by defining and understanding human capital, which is an essential variable in the production function. Education economics is closely related to the labor market. It seeks ways to enable individuals in the labor market to develop their knowledge and skills. Well-educated individuals may have better job opportunities and are employed at higher wages. This situation positively contributes to the country's welfare. Educated individuals may be more prone to entrepreneurship and innovation. Good education stimulates the generation of new ideas, leading to the establishment of new businesses and increased economic growth. The educational economy becomes more effective with an increase in technological development. Educated individuals can adapt to new technologies more quickly and use them more effectively. In turn, this is important for innovation and economic growth. Educational economics is concerned with ensuring sustainable growth and development. Education is a fundamental building block of the economy. While dealing with the economy, education economics is also looking for ways to improve people's quality of life. Thus, an increase in social welfare is ensured. Education economics deals with an adequate means of reducing income inequality. Education helps balance income distribution by offering better job opportunities to a broader population.

## History of education economics

The first birth of education economics dates back to Plato. Plato argues that education is a must for a good society, that education will make individuals logical, and that a large part of their income should be invested in education. In classical economics literature, Adam Smith was the first economist to describe the relationship between economic growth and education. Education can increase individuals' contribution to the economy and emphasize that it is extremely important for economic growth. Alfred Marshall focuses on the economic value of human capital and education. Marshall states that human capital consists of factors such as education and skills of individuals and that education increases the productivity of individuals and contributes to the economic welfare of the society. He emphasized that investments in education support economic growth in the long run (Marshall, 1890). John Stuart Mill mentioned the concept of education in his 19th century works such as "On Liberty" and "Utilitarianism". According to Mill, education is an important concept that aims to develop the potential of individuals and to encourage free thinking. In addition to its contribution to the economy, he argued that education is important for the protection of free thought and expression. The education system allows individuals to express their ideas in diversity and develop critical thinking skills (Mill, 1997). Mill mentioned that education should aim to increase the general benefit of society, and that education makes a greater contribution to society by maximizing the abilities of individuals. His utilitarian approach asserts that education is an effective tool for increasing society's well-being. According to Mill, education enables individuals to develop their abilities for free thought, critical thinking, and social benefit (Mill, 1997; Silva, 2021). Theodore William Schultz's speech on investment in human capital to the meeting of the American Economic Association (AEA) in 1960 is quite interesting. Schultz emphasized the economic value of education, the importance of educational benefits and an economic approach to the analysis of education. He has conducted studies aiming to classify and measure the economic benefits, costs, and costs of education. Schultz, an economist known for his theory of human capital, is based on the idea that education improves human capital by increasing individuals' skill and knowledge levels. According to Schultz, human capital is key to economic development, and education is an essential component of this capital. According to Schultz, education increases the productivity of individuals, makes the workforce productive, and encourages socioeconomic development. Therefore, investments in education support economic growth in the long run. Human capital theory states that skill-enhancing factors such as education are the elements that strengthen and make an economy sustainable (Schultz, 1960, 1961). Schultz stated that education is not only a consumer good, but human capital comparable to physical capital is an important investment tool. He emphasized that education expenditures have a significant impact on the economic performance of individuals and society; therefore, governments should allocate a significant share to education in financial structuring. Some authors claim that educational economics is an old branch of economics. For example, thinkers such as Maureen Woodhall, Adam Smith, and Johann Von Thünen argue that education economics is a very old branch of economics, while writers such as Mark Blaug associate the field closely with human capital theory, saying that "ten years ago, there was almost no such thing as

education economics” (Teixeira, 2000). James Heckman is an economist who has done important work in the field of human capital and early childhood education. He argued that early childhood education is especially effective for improving human capital. Emphasizing the long-term effects of early childhood education, Heckman suggests that education in this period improves individuals’ cognitive and social skills, making them more productive, efficient, and effective for society. Education in this period shapes not only academic skills, but also social skills and personality development. In this way, the success of individuals in future education and the labor market will increase. Heckman also draws attention to the potential of early childhood education to reduce social inequalities. Providing educational opportunities at an early age allows disadvantaged groups to better use these opportunities (Ulger, 2020). Eric Hanushek is an economist who has worked in educational economics and has specifically researched the economic consequences of education quality. His views on education emphasize the importance of quality and the relationship between economic growth and education. According to Hanushek, quality of the education system is essential for increasing human capital and productivity. Quality of education is a factor that determines the skills and productivity of individuals in the labor market. Educated individuals are more likely to have access to higher-paying jobs and earn higher incomes. At the same time, Hanushek emphasizes the importance of effectively managing education expenditures and improving education quality and argues that education investments should be effective not only in terms of quantity but also in quality by emphasizing the effects of education quality on economic growth and social development, emphasizing the importance of education policies, and trying to understand how the education system affects performance in the labor market and social welfare (Hanushek, 2008). Gary Becker stated that economically analyzed individuals include education and skill acquisition decisions, and that education is an investment, and individuals make cost and benefit analyses while making this investment. Education increases human capital by increasing individuals’ skills and knowledge levels, allowing them to access higher-paying jobs and be more economically efficient. Becker also emphasized that education can play a role in reducing income inequality and promoting social mobility, making education opportunities accessible to all, and contributing to economic development and social welfare. Becker emphasizes that individuals act rationally when analyzing educational decisions and the economic consequences of educational investments (Becker, 1964). Milton Friedman, an American economist and free market advocate, argued that education is based on free market principles and that the education system should be privatized. According to Friedman, it is necessary for the state to intervene less in the field of education and provide education services in a competitive market environment. He believed that private schools and systems with competition will increase the quality of education. According to Friedman, the free market approach can improve the quality of education and simultaneously control education costs more effectively. According to Friedman, a system in which public schools are not the only option can encourage diversity in education and help achieve better results through competition (Friedman, 1955). Robert Fogel, an American economist, and Nobel Prize winner, has studies on human capital theory and economic growth. In Fogel’s book “Neoclassical Growth Theory and the Economics of Education”, he explains in detail how education and human capital investments will contribute to economic growth and presents the effects of education on economic growth by supporting it with data (Fogel, 1999). Fogel researched how human capital investments affect economic growth and stated that education contributes to economic growth by increasing individuals’ productivity. In addition, factors such as health, nutrition, and skill development, such as education, can also increase the welfare of society by affecting human capital. According to Fogel, education is an essential factor in promoting economic growth as part of human capital investment and increasing the welfare of society. Robert Fogel is among the pioneers of the cliometric approach (Fogel, 1999). Robert Barro is an influential American economist on economic growth, public spending, taxes, and economic policy. Barro examined the relationship between human capital and economic growth. He stated that human capital investments are an essential factor affecting economic growth, and that education contributes to economic growth by increasing the productivity of individuals. According to Barro, investments in education increase individuals’ level of skills and knowledge and increase economic welfare in the long run. However, Barro argued that this increase in welfare could be possible with the correct management of education expenditures, and that not only the amount but also the quality of education expenditures affects economic growth. He argued that education systems should be efficient and genuinely productive (Barro, 1990). It is clear that education contributes to economic growth through human capital investments, and that the quality of an effective education system significantly impacts its economic outcomes. Robert Lucas, one of the leading economists of macroeconomics and known for his rational expectations theory, views education from the perspective of economic growth and human capital. Lucas’ article “On the Mechanics of Economic Development” is a critical

study that deals with the relationship between education and economic growth. In this article, he analyzes how educational investments increase human capital and how it affects economic growth. According to Lucas, education is essential for economic growth because it encourages human capital investments and innovations. Educated individuals can generate new ideas and integrate them into the economy. Thus, education contributes to economic growth by supporting technological progress and innovation. Lucas emphasized the contribution of human capital investment to economic growth. Lucas states that education will positively affect economic growth by increasing the productivity of individuals, and individuals can reach higher productivity levels by improving their abilities (Lucas, 1988). Robert Solow is an American economist known for his theory of economic growth. According to Solow, education is an investment in human capital and an important economic growth factor. Educated individuals are likely to achieve higher productivity levels and contribute more to the economy. Therefore, education plays a key role in enhancing the general well-being of society and promoting economic growth. Solow also points out that education can promote technological progress. Educated individuals can develop innovative ideas and contribute more to economic processes. Therefore, investment in education has emerged as a factor supporting economic growth. Solow's views primarily focus on the impact of human capital and technological progress on growth, and emphasize that education positively affects economic growth and social development (Solow, 1994). N. Gregory Mankiw, an American economist, evaluated education as an essential concept that positively affects the development of human capital and the economic growth of individuals. Educated individuals are more likely to access higher-paying jobs and individuals are more likely to be productive. Therefore, investments in education can increase the welfare of society. At the same time, Mankiw points to the potential of education investments to reduce income inequality. He emphasized that education can reduce inequality of opportunity between different income groups. Mankiw also emphasized the importance of economic education. According to him, understanding economic issues can help individuals make better decisions and give society a better understanding of economic issues (Mankiw, 1992).

### **Education supply**

offers a service or good to buyers at a specific price and time. Education supply is the time, place, and service offered for education services from preschool to the end of higher education. In other words, education supply refers to the demand or need for educational services in a particular community or region. The term is used in the education sector when educational institutions and governments plan education infrastructure or evaluate available opportunities. Education supply, which expresses the level at which education services are demanded or needed, comprises public and private education institutions. The supply of education in society must be placed in the market before the demand for education. Establishing an education supply is a lengthy process. To increase the education supply, investments must also be increased; this situation changes depending on several factors. For example, factors such as population size, economic situation, employment opportunities, educational infrastructure, technological developments, and the value of society's place on education can affect education supply. A high supply of education can ensure broader and more effective delivery of education services and contribute to society's general welfare and development. Education supply elements complement each other. Elements such as teachers, administrators, and other necessary educational tools must complement each other for the education service to be carried out thoroughly.

### **Education demand**

Demand is the purchase-oriented desire for a particular product or service available in the market. If the education demand is, It is defined as the possibility of a person attending a particular educational institution related to a specific subject at a certain level. Education demand refers to the demand of individuals or society for educational services.

When a good or service in the economy is finished, there is a demand for the same product, while there is a change in education. For example, when secondary education is completed, demands are made as high school, and when high school ends, as a university. When we look at the general distribution in society, the classes at the income level are formed due to the differences in the education level. This situation also affects the demand for education. Income is directly proportional to the demand for education. As the income of individuals increases, the demand for education generally increases. In other words, as people's financial opportunities increase, their demand for education may increase in this direction. Individuals want to use their remaining

income for savings or investments after meeting their basic needs. If education is considered an essential investment tool, it can be invested in education to increase its future income. The efficiency and human capital-increasing aspect of educational services is seen as an investment good and is separated from other types of services.

The demand for education is essential for a country's development, progress, and welfare. Education contributes to the social, economic, and personal development of individuals. Identifying the demand for education helps to increase the importance of education in society and to identify the need for educational opportunities. The demand for education institutions and programs at different levels usually manifests the demand for education in society. Various educational institutions and options, such as educational institutions from primary school to university, vocational training centers, and distance education programs, represent efforts to meet the demand for education. Understanding education demand is essential for effectively planning and managing education policies and resources. In order to meet the demand, the education system must constantly develop and improve itself, be of high quality, accessible and inclusive.

The demand for education is directly and inversely proportional to the price of education. It increases the demand for education by reducing the price of education in financial aid and scholarships. When individuals want to receive education instead of working after compulsory education, the price increases, increasing the demand for education. Elements of education demand; society's income level (national income), population, consumer preference, and individual income level. The balance in the economy is provided by supply and demand; In education, the balance is provided by the supply and demand of education. If the demand for education constantly increases, the supply will respond positively, and the expenditures on education will increase continuously due to investments.

In statist economies, the country's education supply and economic activities should be regulated and implemented by the state, and there should be state initiatives in areas where there is no or insufficient private sector. According to this understanding, the state intervenes directly in the economy and supervises private enterprises.

Education, essential as a semi-public service, develops significant positive externalities to individuals and society. Thus, it contributes to reducing social inequality, contributing to individual and social development, increasing productivity and efficiency, and increasing social welfare by improving economic growth. have significant economic and social impacts. A positive externality is when the utility or well-being of a particular economic unit directly affects other producers or consumers in the economy positively. The education sector is an essential type of service with significant potential for positive externality or utility.

The well-being of a country; depends on the contribution that the people of that country can make to the economic growth and development with the qualified and continuous education and the knowledge and skills they gain. For this reason, the most important driving force of socio-economic development and the primary factor in increasing productivity is the education level of the society (Çakmak, 2008). Even in countries where the market mechanism works effectively, states usually take a leading role in education; It takes an active role in the education process by making relevant legal regulations such as the duration of education and by making educational expenses.

With the formation of the training demand, a certain amount of time is needed for the training supply to be offered immediately. Private education institutions generally only offer education services to the market after the demand for education occurs. The public sector should be involved in this problem of private educational institutions. The state should be both a pioneer and a supporter in increasing the share of the private sector in the education supply and providing education services in the education sector before the education demand. Underdeveloped and developing countries should make the right plans and investments in education and education supply, which is an essential force for their development, increase education expenditures not only quantitatively but also qualitatively, and the balance of education demand with education supply should be ensured. As a result, education supply and education demand play an important role in determining education policies and resources and planning the education system in a country or society.



After the 1980s, with the increase in privatization practices, private schools were encouraged by the public, and private schools were supported. In addition, the neoliberal economic system and the globalization and education system have become profit-oriented commercial institutions with a free market mechanism. This situation has led to questioning the concept of equal opportunity in education. It should not be forgotten that this change, which emerged with such policies, supports and improves a democratic structure, but transforms the society into a discriminatory and unequal structure, and the fact that the education system is paid causes the equality of opportunity to disappear, and therefore the polarization in the society (Verger, Fontdevila and Zancajo, 2016).

Education increases individuals' income level and allows them to find jobs with high added value in the labor market. On the other hand, there is a positive and robust relationship between the increase in education and productivity. The increase in productivity also helps low-income individuals to rise to the top of the income bracket by raising their income levels. In addition, an important step will be taken to ensure fairness in income distribution.

### Education and labor market

There is a strong relationship between education level and employment variable. Educated people are of great importance for countries' social and economic welfare. The education level provides information about the human capital accumulation of countries. Increasing productivity in the economy is only possible with a qualified workforce.

While employment is essential, it is also vital for workers to find jobs that match their qualifications. When individuals accept jobs below their education level not to be unemployed, time and human capital are well-spent, and the number of unhappy people increases. In order to obtain healthy employment, it is necessary to ensure a good harmony between the level of education and the educational requirements of the jobs. For this, appropriate education policies should be implemented. Increasing the labor force participation rate of people in society is considered a direct contribution of education to the economy (ITC, 2011).

On average, across OECD countries and economies participating in the OECD's Adult Skills Survey (PICA), 15% of workers aged 25 to 64 with higher education are overqualified. Highest shares are seen in Japan, where more than 25% of workers report this. In contrast, in Denmark, Finland, Slovenia, Sweden, and Turkey, more than one in ten highly educated workers is not overqualified (OECD, Education at a Glance 2018).

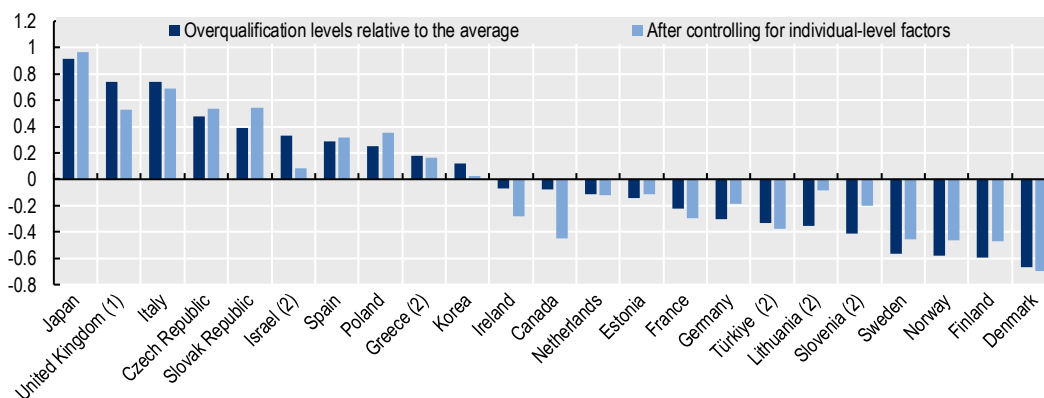


Figure 1: Cross-country differences in higher education qualification levels

Figure 1 shows the extent to which extreme levels of qualifications are above or below the average among individuals with higher education. Bars above zero indicate extreme levels of quality above average, whereas bars below zero indicate extreme quality below average. These estimates were derived using a multilevel logistic regression. Japan has the highest level of relative overqualification, whereas Denmark has the lowest. After controlling for individual-level factors, bar lengths are reduced the most in Canada, Ireland, Israel, Lithuania, Slovenia, the Slovak Republic, and the United Kingdom, where individual-level factors contribute to extreme qualification levels above or below average. In contrast, the bar lengths varied little in the Czech Republic, Denmark, Estonia, Greece, Italy, the Netherlands, Spain, and Turkey. This section examines the education levels

in two groups, 25-64 years old and 25-34 years old. On average, across OECD countries, around 27% of 25-34-year-olds completed a higher education qualification in 2000, increasing to 48% by 2021. An increase in achievement levels indicates that skills are becoming increasingly important (Lauder & Mayhew, 2020). Among those aged 25-64 with higher education, there is a significant increase in employment rates compared to those with a level lower than high school. On average, only 58% of individuals with below upper secondary attainment are employed in OECD countries, whereas 75% of individuals with upper secondary education are employed. The employment rate among higher-education graduates was much higher (85 %). The employment rate of undergraduate students in the labor market is 84% in OECD and European Union countries, and 75% in Turkey. OECD countries, on average, 93% of all doctorate education holders aged 25-64 are employed, and there are only four countries where this ratio is below 90% (Estonia, New Zealand, Spain, and the United States). Latvia and Poland have the highest participation rates in the labor market for students with doctoral education at a rate of 97%. In Hungary, 99% of the adults with doctoral degrees are employed. The employment rate at any postgraduate level is relatively high in most OECD countries. In Turkey, the master's level was 89 %, and doctorate was 93 %, 82 %, and 91 %, respectively. These values show a strong positive relationship between education level and employment. Very few individuals can find a job when the level of education increases in postgraduate education (Attachments Table 1). Educational attainment and employment rates are also positively correlated with higher educational attainment levels. In all OECD countries, except Luxembourg and New Zealand, individuals aged 25-64 with doctoral degrees have the highest employment rates of all achievement levels. The employment rate of individuals with master's degrees is higher than that of individuals with bachelor's degrees everywhere, except New Zealand. On average, people with a master's degree are 5% more likely to be employed than are individuals with a bachelor's degree. Undergraduate students  $\frac{3}{4}$  can only exist in Turkey's labor market. The gap between Turkey's OECD countries is closed in master's and doctorate education.

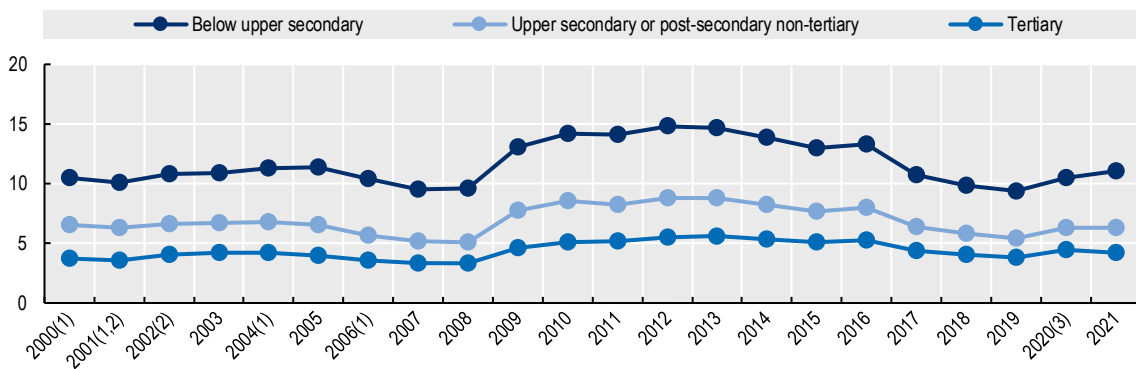


Figure 2: Trends in unemployment rates according to education status (2000-2021)

After the 2008 financial crisis, unemployment increased for those under high school levels, and the effect of higher education on the age of 25-34 years was much less. It resembles this during the COVID-19 epidemic. While unemployment rates increased for three educational levels in 2020, the increase for young adults with higher education is much smaller than those with lower gains (OECD, 2022).

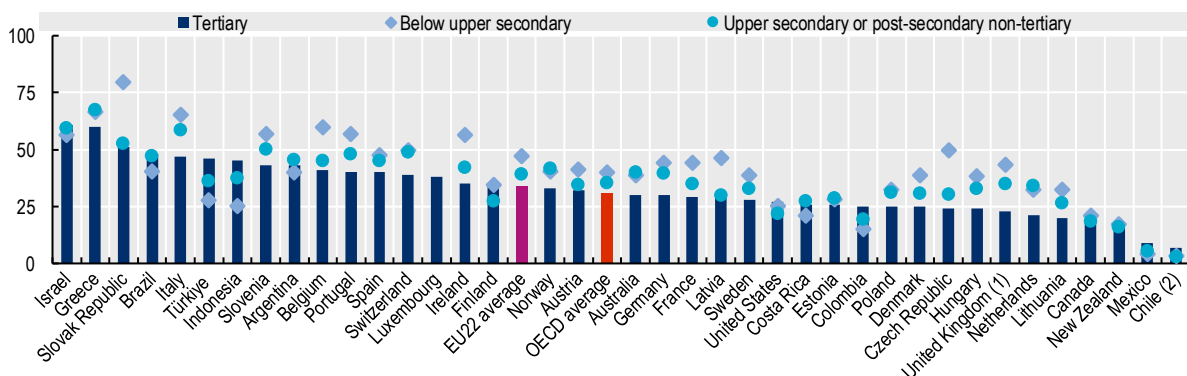


Figure 3: Long-term unemployment between the ages of 25-64 depending on education status (12 months and above) (2021)

Long term unemployment is a more harmful form of unemployment than other types. The unemployed and their families seriously negatively affect physical and mental welfare. It should not be forgotten that it is not easy to find new jobs as the skills are not used and the unemployment time is prolonged. Many employers are reluctant to employ individuals, even if they meet their requirements. These challenges deteriorate because when they find a new job for those who have been unemployed for a long time, they are offered lower wages than those who have been unemployed for less time (İbrahim et al., 2016). For this reason, money and finance policy must make special efforts to prevent long-term unemployment (OECD, 2021).

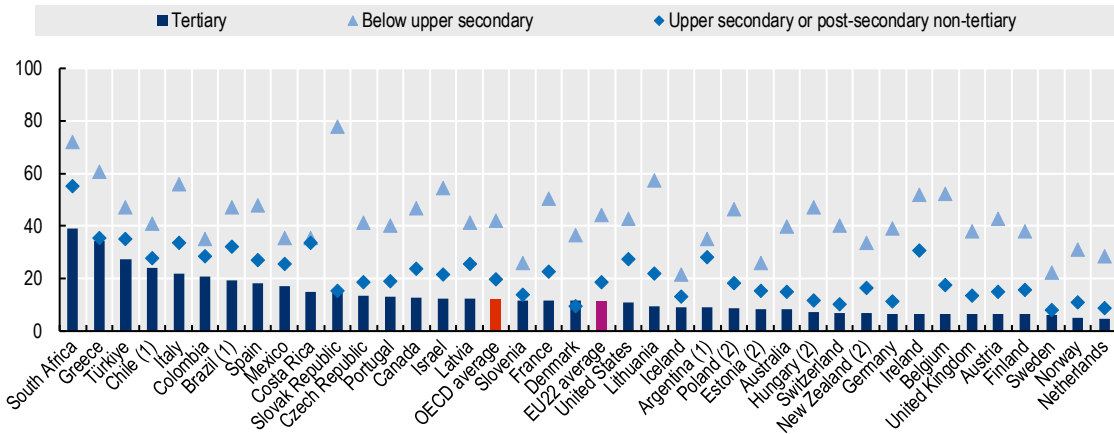


Figure 4: Unemployment rate at educational level

A higher education level also effectively reduces the risk of long-term unemployment. Unemployment rate; It is 31% in higher education, 35% for those with upper secondary, and 40% for those with below upper secondary attainment. Turkey has a 30% unemployment rate in higher education.

## CONCLUSION

Education; In addition to the values such as developing the knowledge and skills of the individual, having a profession, increasing the income level, socializing, adapting to the environment, being a useful individual in the society, fulfilling his civic duties, protecting the values of the country in which he lives, being a good consumer and producer, a qualified human capital element As a result, it causes many effects such as supporting economic development. Considering these effects, it becomes clear how important education is for both the individual and the society.

The right to education comes after the right to life, which expresses the fundamental rights and freedoms that every individual has from birth. The right to life and the right to education are two of the important elements of the concept of human rights. The right to education, along with other economic and social rights, was included in the 1961 Constitution for the first time in our country. Both rights are guaranteed in the United Nations Universal Declaration of Human Rights and other international human rights instruments. States should protect the right to education, such as the right to life, provide education opportunities and provide education opportunities fairly for every individual without discrimination.

Developments in the field of information technologies show that qualified workforce is extremely important for the stability of the economic growth of the countries and the protection of their competitiveness in the international market. The only way to ensure a qualified workforce is through education.

Education expenditures should have an important place in government expenditures in developed or developing countries. In addition, the state should attach great importance to education investments, both as a requirement of social understanding and as a requirement for sustainable development. It is seen that the share allocated to education expenditures especially by developed countries is quite high.

The main axis of education should be based on the principle that free public service is provided. Public resources need to be transferred to the education sector. Considering that public resources are valuable, it is also very important that their resources should be transferred to the right and effective areas.

Perceiving education as a right inevitably includes being regarded as a public service, or rather, the expenses related to education being covered by the state budget in principle, at least the compulsory basic education being completely free. The policy of the Republic to strengthen equality of opportunity with education, in essence, obliges the state to undertake the economic burden of education, not the individual.

Although the private sector is the private sector in education, the main role is taken by the state and education is perceived as a public service because it undertakes this task. The important point here is that the educational opportunities offered by the public are widespread and available to everyone.

Generally, in countries, it is seen that education services are provided in the private sector with the weight of the public in the education sector. According to economists such as Friedman, it is argued that education should be conducted by the private sector. Supporting education by the private sector has both positive and negative consequences. One of the negative consequences is that the children of wealthy families can receive higher quality education than the poor, thus eliminating the equality of opportunity or opportunity in education. With the disappearance of equality of opportunity, especially the social dimension of education will suffer greatly. It is very dangerous to think that education will cease to be a right and be bought by those who want it as a product, as a service.

Education is the key to economic development and education is an essential component of this capital in human capital theory, which examines the effects of people's characteristics such as education, health, skills and knowledge on economic productivity and social development.

Education economics helps to understand how societies shape economic growth, innovation and well-being by understanding the links between education and the economy. Education is an indispensable factor for the success of both individuals and societies and constitutes one of the basic building blocks of economic development.

Human capital is an important factor that contributes to economic growth by encouraging investments and innovations. Educated individuals can generate new ideas, contribute more to economic processes and integrate these ideas into the economy. Therefore, education increases both economic growth and development by supporting technological progress and innovations and thus increases the welfare of society.

Education plays an important role in reducing income inequality. Accessibility of educational opportunities for all is essential for economic development and social welfare. Education will be able to reduce the inequality of opportunity between different income groups. Education is a very important element that strengthens the economy and makes it sustainable.

Education; It increases the productivity of individuals, makes the workforce productive, and thus ensures social and economic development. It should not be forgotten that education should not only be considered as a consumer good, but also an important investment tool. Therefore, spending on education is an investment that pays off by supporting economic growth in the long run. Since education expenditures have a significant impact on the economic performance of individuals and society, governments should allocate a significant share to education in financial structuring. Education expenditures should be managed effectively and it is important to look at it in terms of increasing the quality of education. Education investments need to be effective not only in terms of quantity but also in terms of quality. Since education is an investment, it is important for decision makers to analyze cost and benefit while making this investment.

Despite the continuous increase in the budget allocated to education in Turkey in recent years, it is still at a low level compared to OECD countries. In order to reach world standards, it is clear that there are qualified individuals in the country and these qualified individuals can be trained through education. The most important factor determining the quality of education in the country is closely related to how much of the income in the country is allocated for education investments.

It is seen that there is an increase in the expenditures made on education in Turkey, but not only investment in education, but also everything necessary should be done to turn this investment into success. Education expenditures in Turkey should be used more efficiently and effectively. In addition to the effective and efficient use of the expenditures made for education, it is also extremely important to measure and evaluate the productivity and output levels resulting from the results. In addition, as well as the national results obtained, these results should be compared with the data of other countries and measures should be taken in this direction.

When the schooling rates are analyzed by age groups, the schooling rate of individuals between the ages of 15-19 in Turkey is 73%, while the OECD country average is 84%. Education has an impact on the formation of qualified human capital, ensuring and maintaining economic growth and development, increasing the international competitiveness of the country, increasing the welfare level of individuals and the country, creating a fair income distribution in the country, increasing the environmental awareness of individuals and many more. It is possible to provide education, which is so important, only by investing in education expenditure. There is no doubt that spending on education is the most profitable investment for the country.

Total public expenditure on education (from primary to higher education) averages 10% of total government expenditure across OECD countries. Between 2015 and 2019, the proportion of government spending devoted to education fell by about 1%, on average across OECD countries. The ratio of total government expenditures to education is the highest in China (5.4%) and the least in Greece (1.5%). While the contribution rate to higher education is 2.8% in OECD country averages, it is 3.7 in Turkey.

Adults between the ages of 25-64 in Turkey, the last education institution they graduated from is mainly at primary education level, and the rate of graduates from higher education is 22%. In the United States, only 8% and 50% of adults aged 25-64 with primary education have graduated from higher education institutions.

In OECD countries, between 2000 and 2021, the average proportion of young adults aged 25-34 in higher education (bachelor, master or doctoral) increased strongly between 2000 and 2021, from 27% in 2000 to 48% in 2021. rose. In this age group, the share of individuals with higher education is 7% higher than the share of individuals with upper secondary. In this period, the increase in Turkey nearly quadrupled, reaching 31% (an increase from 9 to 40). The increase in achievement levels shows that the concept of education is becoming more and more important.

In Turkey in 2022 (compared to 2008); There is a 35.98% increase in bachelor's level, 25.02% in master's education and 35.37% in doctoral students. These figures show that the increase in higher education is quite high. It is seen that there is an increase in the rate of participation in education by 54.02% for men, 43.43% for women and a 49.25% increase in total in Turkey. In our country, it is observed that the participation rate of men in education is higher than that of women.

When the distribution within higher education is analyzed in terms of OECD countries, 71% of them are public institutions, while in some countries such as Chile, Israel, Korea, Latvia and the United Kingdom, about 80% of higher education students are enrolled in private institutions.

Only 58% of below upper secondary attainment are employed in OECD countries, while 75% of upper secondary or post-secondary non- higher education attainment are employed. The employment rate of individuals with higher education is 85%. These figures show how the probability of finding a job increases as the level of education increases. The employment rate of undergraduate students in the labor market is 84% in OECD and European Union countries and 75% in Turkey. Across the OECD, on average, 93% of all 25-64 year olds with doctoral degrees are employed, and there are only four countries where this ratio is below 90% (Estonia, New Zealand, Spain and the United States). Latvia and Poland are the countries with the highest rate of participation in the labor market for students with doctoral education at a rate of 97%. An impressive 99% of adults with doctoral degrees are employed in Hungary. It is seen that the employment rate at the postgraduate level is quite high in almost all OECD countries. Master's level was 89% and doctorate was 93%, 82% and 91% respectively in Turkey. It can be said that undergraduate students  $\frac{3}{4}$  can only exist in the labor market in Turkey, but the gap between them and OECD countries is closed in master and doctorate education.

A higher education level is also effective in reducing the risk of long-term unemployment. Unemployment rates are higher for those with upper secondary and lower upper secondary in almost all countries. Unemployment rate is 31% in higher education, 35% in upper secondary or post-secondary and 40% in below upper secondary attainment. Turkey ranks third in higher education and has an unemployment rate of 30%.

Looking at the data on young people who are neither in employment nor in education; Brazil, Greece, Italy, Turkey and South Africa are the countries with the highest share. While the OECD country average of these data is 16.1%, Turkey is 32.2%. Turkey ranks third after South Africa and Brazil. At the higher education level, this rate is slightly lower. 12.1% on average in OECD countries; It is at the level of 27.4% in Turkey. It shows that the policies applied should be aimed at orienting young people towards education, training or employment. Denmark, the Netherlands and Sweden are one of the few countries where this ratio is below 10%. In OECD countries, the most uneven earnings distribution among highly educated workers are Mexico, Costa Rica and Chile.

In Turkey, the employability of individuals has increased with the level of education. 54% of young adults with below upper secondary attainment, 65% of those at upper secondary and about 73% of those at higher education level are employed. Monetary and fiscal policy needs to make special efforts to prevent long-term unemployment.

Regardless of the contribution of education to economic development, whether all or some of the expenditures made in this field are considered as an investment or not, each effort to expand education and training activities and to make them better quality is very important and valuable. Every resource that can be obtained for education expenditures is a valuable step towards improving the quality of education. As the economy contributes to education, the direct and indirect contribution of education to the economy is extremely important.

The most valuable resource that countries have is human capital, that is, human capital. Raising this power in accordance with the economic, political and social goals of the nation will continue to be important in the future as it was in the past. The manpower used in the creation of scientific and technological innovations and increasing the quality of life through these innovations can only be possible with a quality education process.

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