



Investments in human capital

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ABOUT THE STUDY

Like any investment, human capital investment has investment costs. Generally speaking, in European countries, most education expenditures take the form of public consumption, but some expenses are also borne by individuals. These investments can be very expensive. In 2005, EU governments' expenditure on education accounted for 3% to 8% of GDP, with an average of 5%. However, measuring expenditure in this way alone would greatly underestimate the cost, because it completely ignores a more subtle form of cost: the opportunity cost of lost wages, because students cannot work during their studies. The total cost of education, including the opportunity cost, is estimated to be twice the direct cost. Including opportunity costs, investment in education in EU countries accounted for around 10% of GDP in 2005. By contrast, investment in physical capital represents 20% of GDP. Therefore, the two are of similar magnitude. Within the economy, the impact of human capital on income is estimated to be quite significant: 65% of wages paid by developed countries is paid to human capital, while only 35% is paid to the original workforce. The higher productivity of well-educated workers is one of the factors behind higher GDP and therefore higher incomes in developed countries. As shown in the upper left graph, there is a strong correlation between GDP and education in countries around the world. However, it is not clear to what extent education explains the high GDP. After all, rich countries can also afford more education.

To distinguish the share of GDP explained by education from other reasons, Weil calculated how much people expect of each country's GDP based on data for the average level of education.

This is based on the above-mentioned Hall and Jones calculations of returns to education. The GDP predicted by Weil's calculations can be drawn based on actual GDP, indicating changes in education explain part of the changes in GDP, but not all of them. Finally, the issue of externalities should be considered. Generally speaking, when talking about externalities, people think of the negative effects of economic activities that are not included in market prices, such as pollution. These are negative externalities. However, there are also positive externalities, that is, a positive influence that someone can benefit from without paying for it. Education has a major positive externality: giving a person more education will not only increase his production, but also increase the production of those around him. Educated workers can consider new technologies, methods, and information for others. They can teach others things and lead by example. The positive externalities of education include the influence of personal networks and the role educated workers play in it. The positive externality of human capital explains why the government is involved in education. If left alone, they will not consider the full social benefits of education, that is, the increase in other people's production and wages, so the amount they choose to get will be less than the social optimum.