

INCENTIVES TO INVEST IN EDUCATION

The economic benefits of education flow not just to individuals but also to governments through additional tax receipts as people enter the labour market. These public returns, which take into account the fact that providing education is also a cost to governments, offer an additional perspective on the overall returns to education. Of course, they must be understood in the wider context of the benefits that economies and societies gain from increasing levels of education. From a policy perspective, awareness of economic incentives is crucial to understanding how individuals move through the education system. In shaping policies, it is important to consider the balance between private and public returns.

Definition

The economic returns to education are measured by the net present value. Public costs include lost income tax receipts during the schooling years, and public expenditures (such as paying teachers' salaries), both of these investment streams take into account the duration of studies. On the

benefit side, age-earnings profiles are used to calculate the earnings differential between different educational groups (below upper secondary education; upper secondary or post-secondary non-tertiary education; and tertiary education). The benefits for the public sector are additional tax and social contribution receipts associated with higher earnings and savings from transfers (housing benefits and social assistance) that the public sector does not have to pay because of higher levels of earnings.

Comparability

The calculations involve a number of restrictive assumptions needed for international comparability. In calculating the investments in education, foregone earnings have been standardised at the level of the legal minimum wage or the equivalent in countries in which earnings data include part-time work. When no national minimum wage was available, the level was selected from wages set in collective agreements. This assumption aims to counterbalance the very low earnings recorded for 15-24 year-olds that led to excessively high estimates in earlier estimates. In the Czech Republic, Hungary, Japan, the Netherlands, Portugal and the United Kingdom, actual earnings are used in calculating foregone earnings and taxes, as part-time work is excluded in these earnings data collections.

Overview

Investments in education generate public returns from higher income levels in the form of income taxes, increased social insurance payments and lower social transfers. The public returns for a man investing in upper secondary or post-secondary non-tertiary education are positive in most countries. On average across OECD countries, this level of education generates a net return of USD 36 000. For Austria, the United Kingdom and the United States, it generates a net return of more than USD 70 000. The benefits are more than twice as large, on average, as the overall public costs for upper secondary or post-secondary non-tertiary education.

The public returns to tertiary education are substantially larger than the returns to upper secondary or post-secondary non-tertiary education, in part because a larger share of the investment costs are borne by the individuals themselves. The main contributing factors are, however, the higher taxes and social contributions that flow from the higher income levels of those with tertiary qualifications. In Belgium, Germany and the United States, these benefits exceed USD 190 000 over an individual's working life.

Direct costs for tertiary education are generally borne by the public sector, except in Australia, Japan, Korea, and the United States, where private direct costs such as tuition fees constitute over half of the overall direct investment costs. Together with foregone public benefits in the form of taxes and social contributions, direct and indirect public investment costs for a man with a tertiary education is on average USD 34 000 among OECD countries. It exceeds USD 50 000 in Austria, Denmark, the Netherlands and Sweden, whereas in Korea and Turkey it is below USD 15 000. Such public costs are large, but they are surpassed by private investment costs in most countries. On average across OECD countries, the total benefits for a man investing in tertiary education (USD 129 000) is almost four times the total costs (USD 34 000).

Sources

- OECD (2011), *Education at a Glance*, OECD Publishing.

Further information

Analytical publications

- OECD (2011), *Reviews of National Policies for Education*, OECD Publishing.
- OECD (2010), *Trends Shaping Education*, OECD Publishing.

Methodological publications

- OECD (2011), "A User's Guide to Indicator A9 – Incentives to Invest in Education", *Education at a Glance 2011*: OECD Indicators website.

Online databases

- OECD Education Statistics.

Websites

- OECD Education at a Glance, www.oecd.org/edu/eag2011.



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Public investment and return in education for men

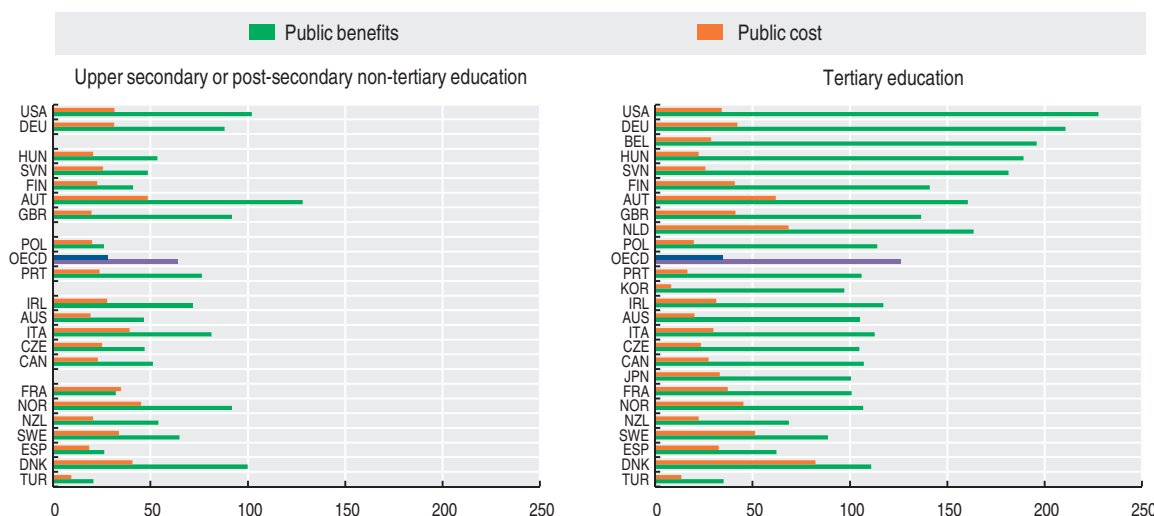
US dollars, 2007 or latest available year

	Upper secondary non tertiary education					Tertiary education				
	Direct cost	Foregone taxes on earning	Total cost	Total benefits	Net present value	Direct cost	Foregone taxes on earning	Total cost	Total benefits	Net present value
Australia	-14 757	-4 357	-19 114	46 632	27 518	-13 209	-7 002	-20 211	104 749	84 532
Austria	-39 507	-9 061	-48 568	128 205	79 637	-51 546	-10 354	-61 900	160 578	98 678
Belgium	..	..	..	..	..	-20 552	-8 132	-28 684	196 786	167 241
Canada	-20 114	-2 859	-22 974	51 178	28 204	-24 166	-3 234	-27 400	108 278	79 774
Czech Republic	-18 306	-6 804	-25 110	47 037	21 927	-14 749	-8 735	-23 485	104 791	81 307
Denmark	-28 705	-12 076	-40 781	99 870	59 089	-64 272	-18 007	-82 279	136 583	28 621
Finland	-19 061	-3 568	-22 629	40 991	18 362	-34 358	-6 565	-40 923	149 831	100 177
France	-29 063	-5 660	-34 722	32 221	-2 501	-28 412	-8 841	-37 253	104 057	63 701
Germany	-23 597	-7 812	-31 410	88 089	56 680	-29 854	-12 292	-42 146	216 069	168 649
Hungary	-14 543	-6 026	-20 569	53 507	32 938	-13 612	-8 763	-22 375	190 446	166 872
Ireland	-20 729	-7 054	-27 784	71 408	43 624	-21 467	-9 833	-31 301	120 773	85 917
Italy	-30 614	-8 568	-39 181	81 343	42 162	-18 847	-11 023	-29 870	116 469	82 932
Japan	..	..	..	..	..	-17 897	-15 254	-33 151	100 562	67 411
Korea	..	..	..	..	..	-5 185	-2 923	-8 108	97 141	89 034
Netherlands	..	..	..	..	..	-34 104	-34 351	-68 454	179 600	95 030
New Zealand	-16 527	-4 015	-20 542	54 096	33 553	-17 470	-4 756	-22 227	70 332	46 482
Norway	-34 470	-10 723	-45 193	91 904	46 711	-31 963	-13 333	-45 296	113 029	61 507
Poland	-12 824	-7 216	-20 040	26 050	6 010	-10 791	-9 092	-19 883	115 750	94 125
Portugal	-19 937	-3 854	-23 791	76 420	52 629	-11 848	-4 706	-16 553	106 018	89 464
Slovenia	-20 398	-5 164	-25 562	48 543	22 981	-19 911	-5 848	-25 759	181 623	155 664
Spain	-17 532	-1 048	-18 580	26 317	7 738	-30 308	-2 429	-32 737	62 319	29 582
Sweden	-26 133	-7 755	-33 888	64 944	31 056	-36 490	-14 668	-51 158	97 340	37 542
Turkey	-4 776	-4 551	-9 327	20 699	11 371	-9 567	-3 814	-13 381	35 106	21 724
United Kingdom	-15 838	-3 817	-19 655	91 815	72 161	-24 919	-16 257	-41 176	138 199	95 322
United States	-30 470	-1 063	-31 533	102 029	70 497	-32 281	-1 776	-34 057	227 641	193 584
OECD average	-21 805	-5 860	-27 664	63 967	36 302	-24 711	-9 680	-34 391	129 363	91 395

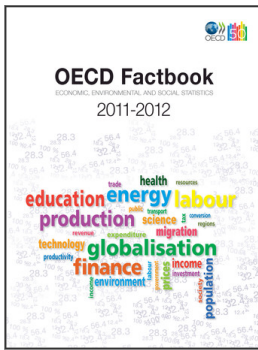
StatLink <http://dx.doi.org/10.1787/888932506647>

Public cost and benefits for a man obtaining upper secondary or post-secondary non-tertiary education and tertiary education

Thousand US dollars, 2007 or latest available year



StatLink <http://dx.doi.org/10.1787/888932506666>



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