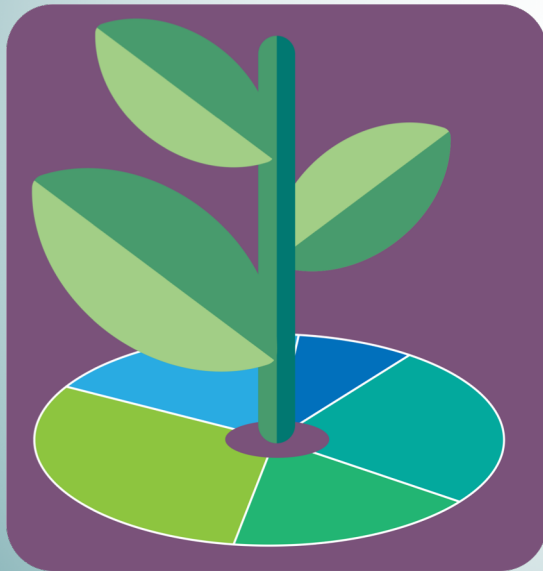


Economics of Social Expenditure

CHAPTER II. ANALYSIS OF MERIT GOODS

2.2 Public Spending on Education



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Paloma Lanza León
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DPT. OF ECONOMICS

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Index

Motivation (Curve of *Great Gatsby*: model that measures the probability of jumping from a lower class to a higher one – “*social elevator*”)

Fundamental Objectives

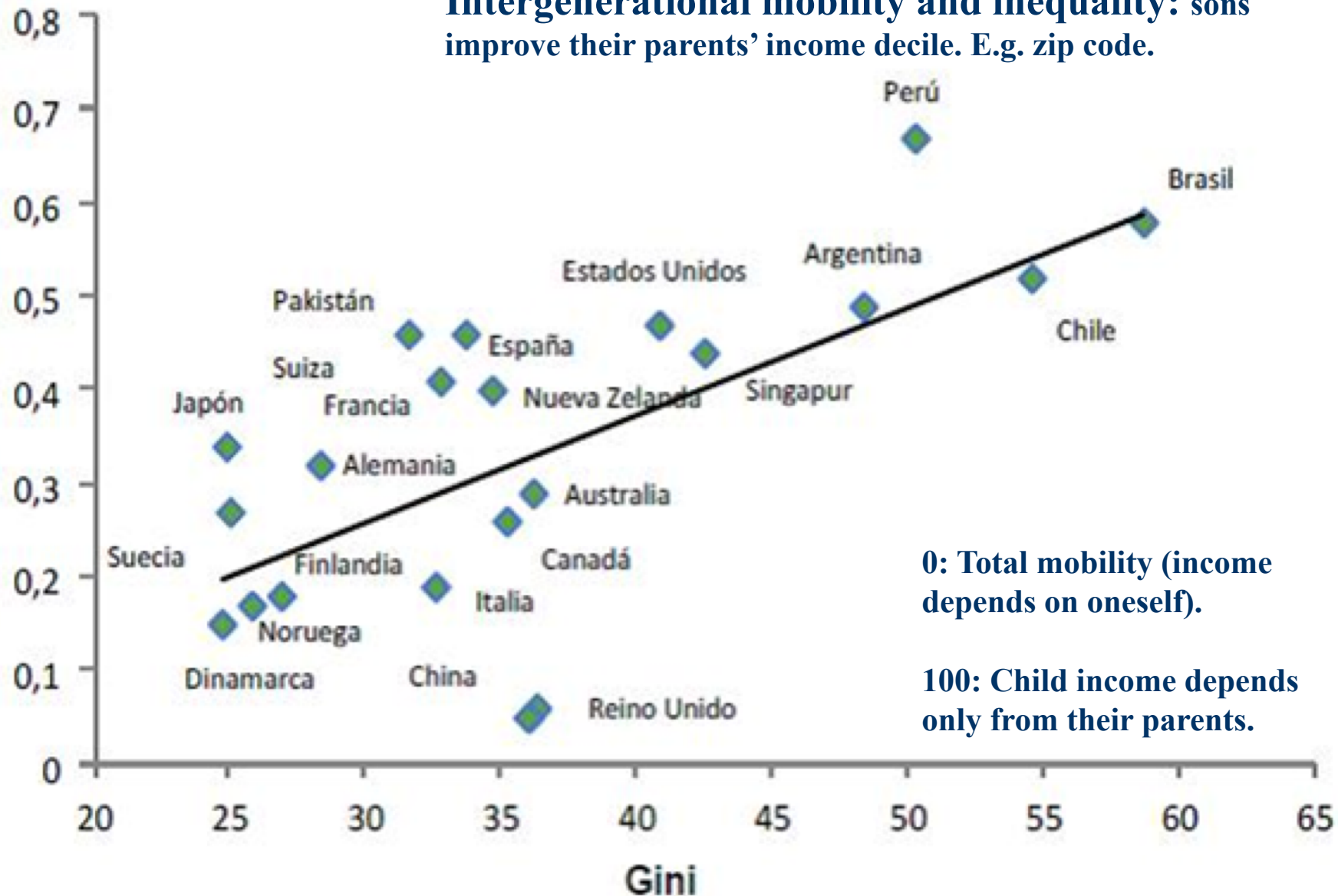
1. Economics of education as a discipline. Different theories

2. Education and development. Neoclassical or productivist approach. Human development approach

3. Financing of education. Grants and school vouchers

4. Current trends in economics of education

Intergenerational mobility and inequality: sons improve their parents’ income decile. E.g. zip code.



0: Total mobility (income depends on oneself).

100: Child income depends only from their parents.

The Welfare State. Expenditure distribution

- Historically it identifies the Public Sector with provision of pure public goods (defense or justice).
- Today a large part of public activity: objective to guarantee a sufficient level of life in *Welfare State* (*but is it the same for more people?*)

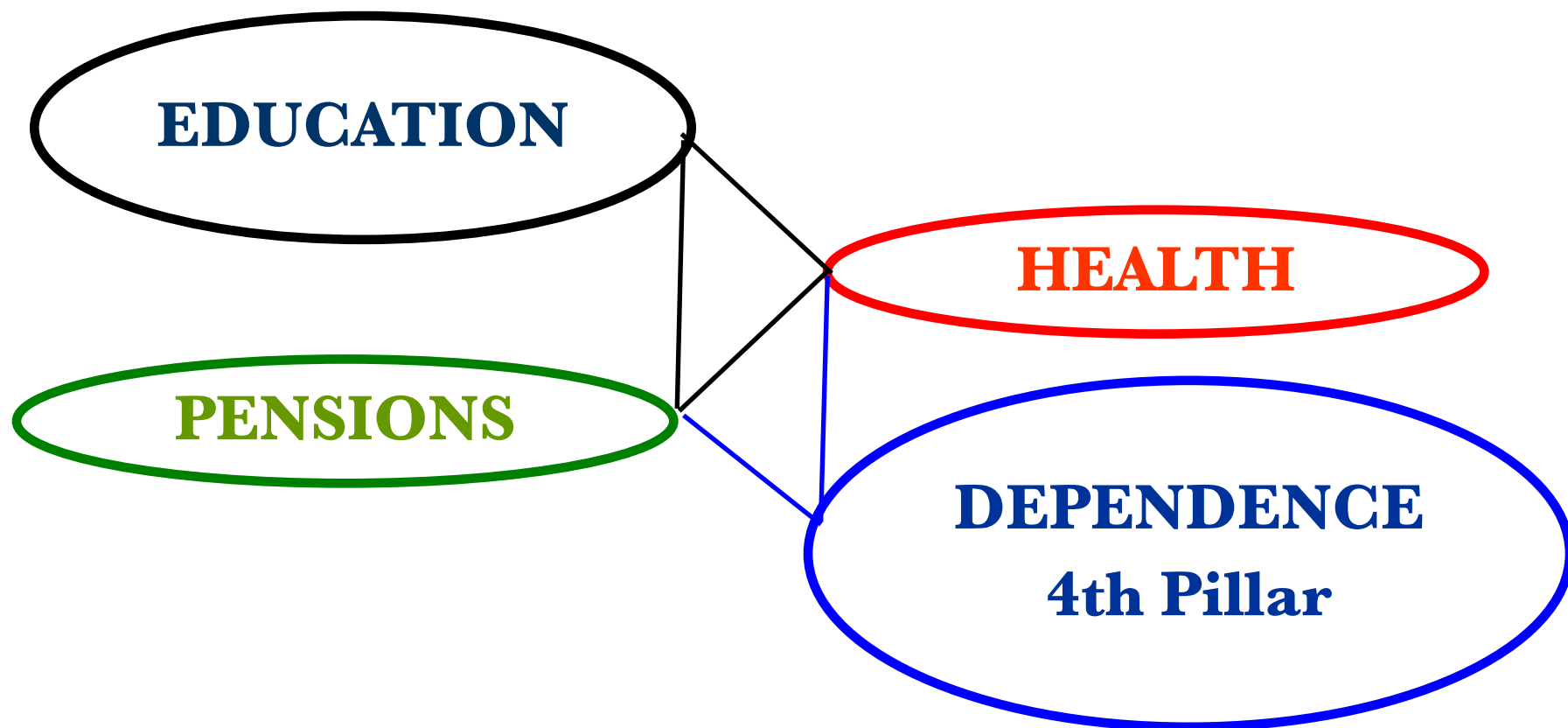
Programs:

- 1) Facilitate consumption of goods and services for a satisfactory life (Health, “Basic education”... Public Sector provides them “free of charge” /Housing, Higher Education or Culture where Public Sector ∇ market price).

MERIT GOODS OR SOCIAL GOODS In-kind transfers (specific uses) Public Sector gives directly or indirectly via prices. 25% Public Expenditure.

- 2) Money transfers to subjects for private goods who prefer ***ECONOMIC BENEFITS*** (Pensions, unemployment insurance, etc.) 35% Public Expenditure.

4 PILLARS OF THE WELFARE STATE IN SPAIN. From the triangle to the rhombus



The Welfare State. Expenditure distribution (II)

MERIT GOODS AND CATEGORICAL EQUITY

- **Article 27.1. Spanish Constitution (CE): right to education.**
- **Article 43.1.CE: Right to health protection.**
- **Article 47 CE: Right to enjoy decent and adequate housing.**
- **Article 27.4: Despite recognizing the preferential nature of these goods, the CE only free and compulsory Basic Education (now it is 6-16 years with Primary and “ESO”... before it was “EGB” etc.)**
- **Article 44 CE: Everyone right to culture (promote and protect) and Article 43: public authorities will facilitate the proper use of leisure (promote health, physical and sports education).**

Preferential/MERIT Goods: Health, Education, Housing and Dependency.

The Welfare State. Expenditure distribution (III)

MERIT GOODS AND CATEGORICAL EQUITY

- *In-kind transfers* (conditional) *versus* *cash transfers* (unconditioned): Empirical models.
- A and B =amounts: provision of merit goods or economic benefits to consume it? (Myrdal, 1945). If €3,000 and A and B homogeneous? >wellness?
- Example, if A in-kind and B cash transfer, B looks for education at a price < cash transfer value and takes advantage of the remainder for other goods. A the same, but he is forced to spend it all on education. If equal amounts, cash transfers (absolute consumer sovereignty) preferable to the provision of preferential goods.
- **MERIT GOODS PATERNALISM** of the Public Sector according to value judgments (changing and subjective).
- Paternalism and access to minimum levels (limited consumer sovereignty) is **CATEGORICAL EQUITY**.

The Welfare State. Expenditure distribution (IV)

ECONOMICS OF SOCIAL EXPENDITURE

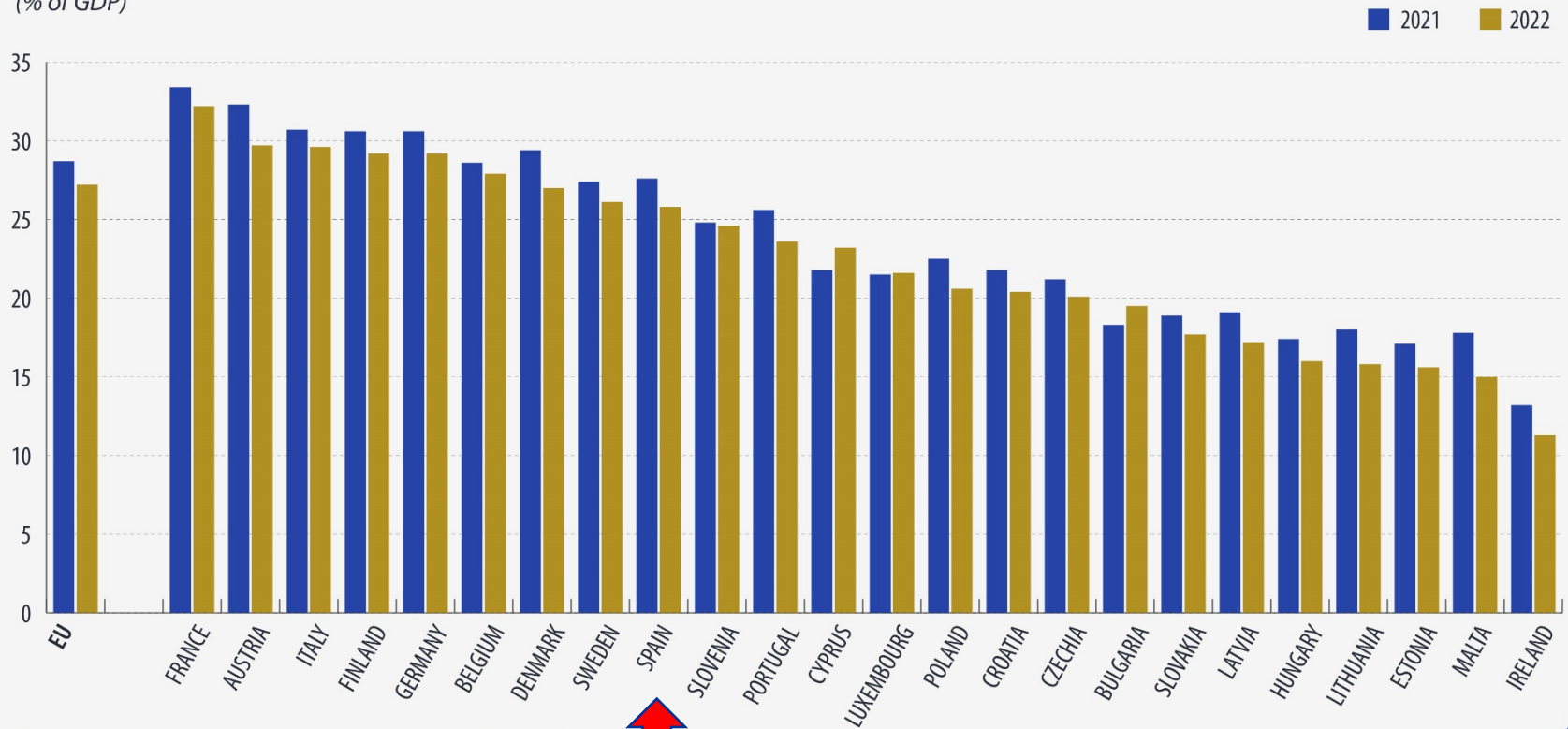
- **Social protection as a set of Welfare State interventions (EUROSTAT).** <https://ec.europa.eu/eurostat/web/social-protection>
- **Data on social protection Spain and EU. Similarities and differences SEEPROS-European System of Social Protection Statistics (EUROSTAT) and SOCX-Social Expenditure Database (OECD)-do not cover all “social” expenditures (eg education). International comparisons.**
<https://www.compareyourcountry.org/social-expenditure>
- **Information on levels and growth of Total and Social Expenditure, in % GDP, in the European Union.**
- **Analysis and evaluation of social spending in Spain. Social convergence with Europe? Need to analyze +indicators: quality of life, utilization, integration, etc**

<https://ec.europa.eu/eurostat/web/european-pillar-of-social-rights/overview>
<https://ec.europa.eu/social/main.jsp?langId=en&catId=815>

EXAMPLE: INTERNATIONAL COMPARISON

Social protection benefits expenditure, 2021 and 2022

(% of GDP)



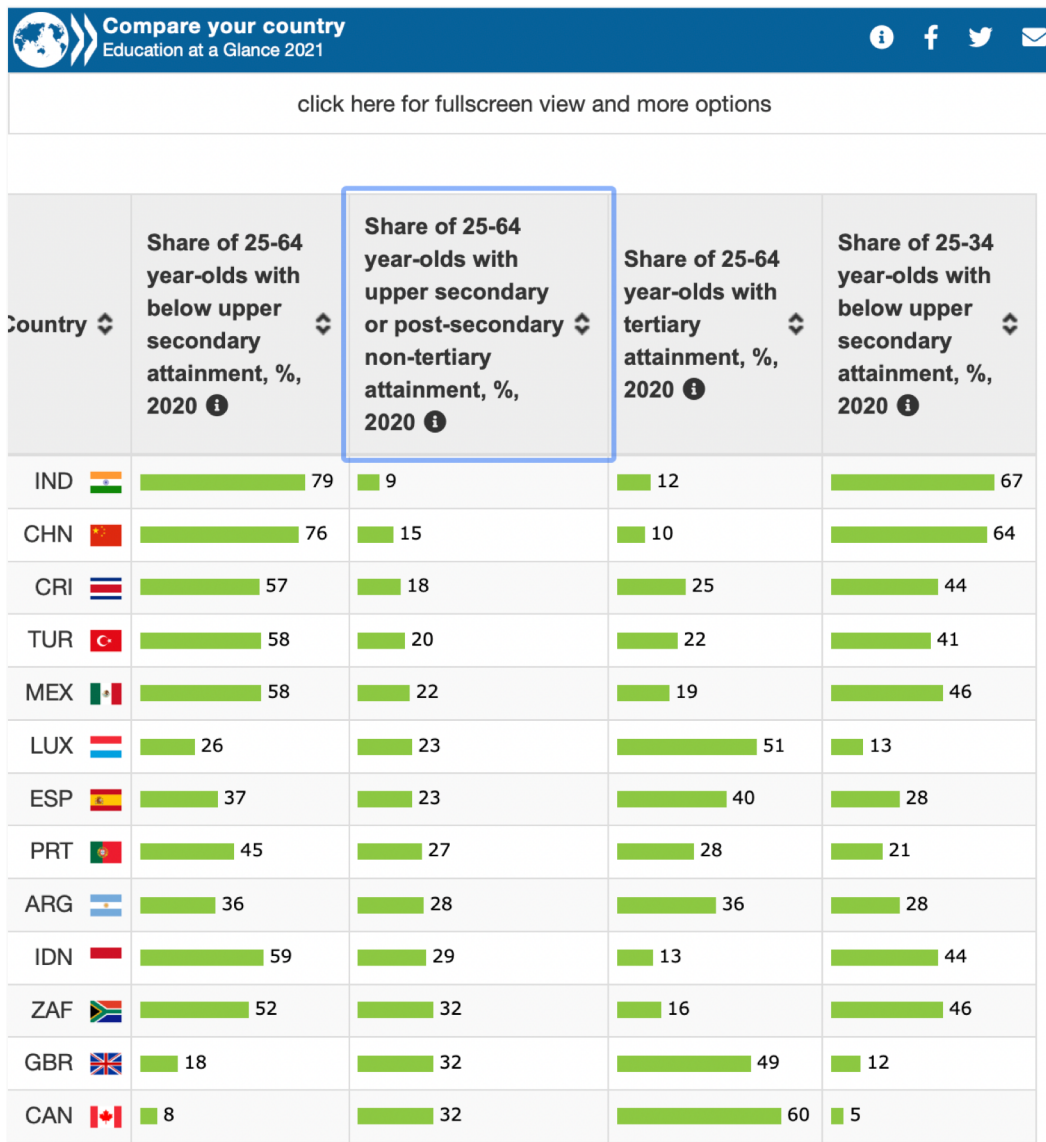
This visual only includes Member States with available data for both 2021 and 2022.

INTERNATIONAL COMPARISON EXAMPLE



Font: SOCX-Social Expenditure Database

<https://www.oecd.org/social/expenditure.htm#:~:text=The%20OECD%20Social%20Expenditure%20Database,as%20net%20social%20spending%20indicators.>



Source: SOCX-Social Expenditure Database

<https://www.oecd.org/social/expenditure.htm#:~:text=The%20OEC D%20Social%20Expenditure%20Database,as%20net%20social%20spending%20indicators.>

1. Economics of education as a discipline. Different theories

ECONOMICS OF EDUCATION

- **MERIT GOOD** and in all countries there is a consensus that the Public Sector should favor the acquisition of education.
- Its provision achieves other objectives:

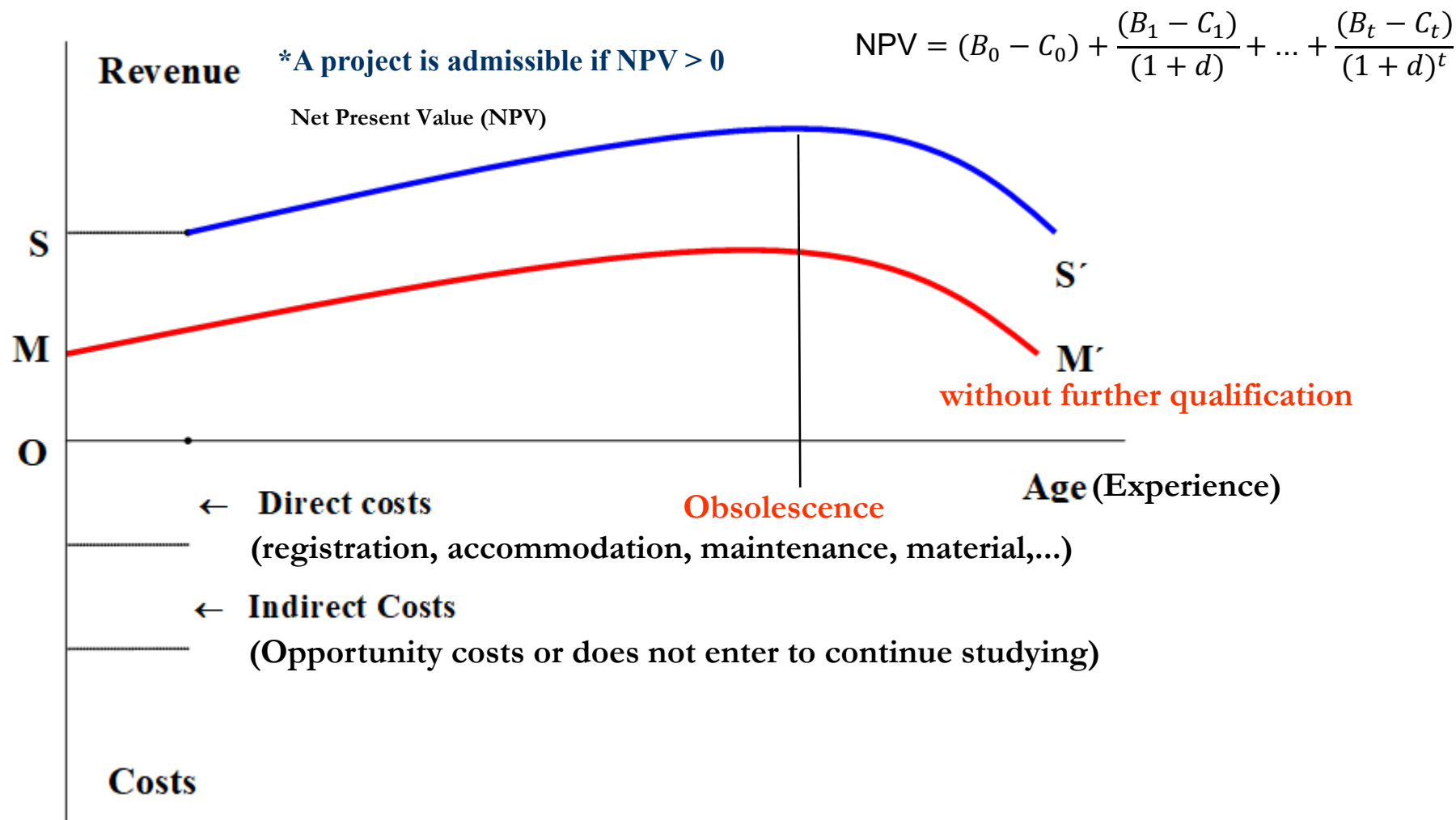
1) *INTERNALIZE EXTERNAL EFFECTS*

- Promotes social stability and the functioning of democratic systems by training well-informed voting citizens and creating social cohesion-transmission of common cultural heritage (either via “paper” or now digitally...)
- But Blaug(1972): speaking about Education, this stype of arguments is debatable.

2) *∇ ECONOMIC INEQUALITY*

- Implicit idea: +education, reaches +income.
- **HUMAN CAPITAL THEORY** and **SELECTION THEORY**. Equal opportunities.

Evolution of the income-age ratio according to years of schooling



Public Expenditure on Education. Different theories. The educational system in Spain

HUMAN CAPITAL THEORY (Becker, 1964 and 1983)

- Education as an investment good. Acquiring education = investment in human capital, Δ productivity of subjects and returns in the future via +high income.
- Criticism: “CREDENTIALIST AND INSTITUTIONALIST APPROACH” (*signaling/screening*) as signs or “weapons” of “*signaling*” Productivity and Institutional Interpretation (Arrow, 1973; Taubman and Wales, 1973/76) as a meritocratic ranking machine.
- “*halo*” Effect either “*high quality*”: titles give holders +efficient qualification (+quality). Education (“diplomas” gap) as a response to inequality and technocratic language vs. Democratic (eg climate change). School as “*advertising agency*” (the “best and +bright” = elite) of the productive system (Illich, 1978; Sandel, 2020) and deschooling or “RADICAL” ECONOMISTS APPROACH. Smart way of acting.
- Eg Δ Overqualification in Spain in recent years (Oliver and Raymond) around 17%, can permanently mark laboral future.

Public Expenditure on Education.

Different theories. The education system

$$(B_0 - C_0) + \frac{(B_1 - C_1)}{(1 + \rho)} + \dots + \frac{(B_T - C_T)}{(1 + \rho)^T} = 0$$

SELECTION THEORY (Spencer, 1974)

- Less optimistic about education. Education \Rightarrow Δ income, not Δ productivity but because employers use it as an expected indicator of it (**EDUCATION AS A SIGN**, not everyone does it because it has costs).
- Education \Rightarrow *FILTER* (identify innate skills in the labor market when hiring, incomplete information. **UNIFYING BALANCE vs. SEPARATING ONE**).
- Human capital theory and Selection one are not incompatible: profitable to invest in education for +future income. At an empirical level, both theories are equivalent, since in Human Capital Theory educational spending is efficient, and in Selection Theory educational spending is inefficient (there are filters +cheap as for example, the tests).
- Profitability analysis of education (De la Fuente): in IRR degree (ρ) private (7% for students) and social (they recover 90% of their cost for public finances). Example: Average real return before taxes on the public debt and equity portfolio: 3.2%

Public Expenditure on Education. Different theories. The educational system in Spain

SELECTION THEORY (Spencer, 1974). Example EDUCATION AS A SIGN, 2 balances: Unifying and/OR separating balance (those of low productivity “blue collar” choose not to take education and the +productive (“white collar”) choose education and exact years).

- In the market there are 2 types of workers: $\theta\%$ of them have high capacity and higher productivity than the rest
- Eg $W_{\text{HIGH}} = \text{€}80,000$, $W_{\text{LOW}} = \text{€}40,000$
- Starting situation: **GROUPING OR JOINING/unifying EQUILIBRIUM**
- Businessmen **do not distinguish what type each worker is** (they do not see their individual productivity, it is a latent variable) they limit themselves to pay the salary = expected marginal productivity per worker
$$W = \theta 80,000 + (1 - \theta) 40,000$$
- When it happens: The labor market is in **GROUPING OR JOINING EQUILIBRIUM** (*pooling equilibrium*)

2. Education and development



- Economic growth and human development
- In theory, United Nations Development Program (UNDP) defines **HUMAN DEVELOPMENT**: Normative proposal of what development objectives should be. *“Create an environment conducive for human beings to enjoy a long, healthy and creative life. This may seem like an obvious truth, but it is often forgotten in the immediate concern of accumulating consumer goods and financial wealth.”* (Human Development Report, 1990).
- Features that define an environment conducive to Human Development: increase population capacities, cooperation, equity, sustainability, security.
- To be sustainable, economic growth must be nourished by the fruits of human development, such as improved knowledge and skills of workers, opportunities to use them efficiently: +better jobs, conditions for new businesses to flourish, and +democracy at all levels of decision-making.

2. Education and development

- **Neoclassical or Productivist Approach**
 - Education is viewed from the idea of human capital as a productive factor to be considered in terms of production, distinguishing stages from 1st jobs framed in neoclassical theory to those of endogenous growth or **σ -Convergence** (if dispersion between countries decreases with time; for there to be σ -convergence it is necessary to have β) and β (if the poor have grown more than the rich) (Mankiew, Romer, and Weill; Mud and Sala-i-Martin).
- **Human Development Approach**
 - It is +complete (consider to other variables such as social quality of individual existence, life expectancy, literacy rate, multidimensional inequality, gender disparity, extreme poverty, ...) and carries an implicit Productivist Approach.

3. Financing of education. Grants and school vouchers

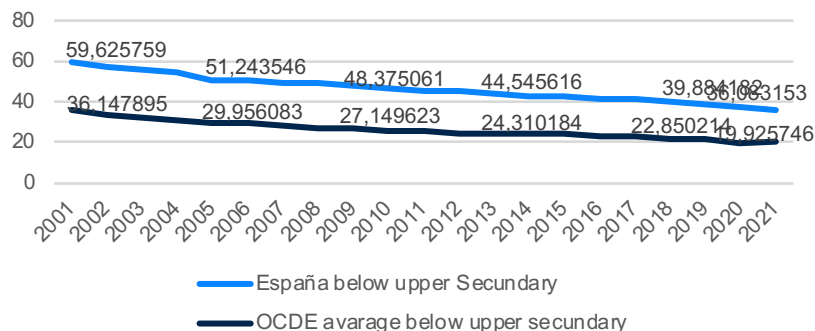
PUBLIC SECTOR OF EDUCATION IN SPAIN (Since 1978)

- **LOGSE (1990): Children: 0–6 (free); Elementary: 6–12 (free). Mandatory; ESO-Secondary: 12–16 (free); Baccalaureate/FP (intermediate degree): 16–18;Upper: >18. Minimum age-labour market: 16 years (< average Europe 18 years).**
- **In primary and secondary, public provision and public production (67%) or private 33% (subsidized centers -LODE 1985). Parents or guardians choose school. 31% did not finish secondary school 2nd stage (school failure). In Superior idem there is public and private production (< 10%).**
- **Law Organic Quality of Education (LOCE) 10/2002 (reformed by the Organic Law on Education-LOE 2006 and the Organic Law for the Improvement of Educational Quality-LOMCE 8/2013 and 2020 Organic Law of Modification of LOE (LOMLOE) +LOMLOE 2022, Organic Law on Qualifications and Vocational Training (LOCFP) (5/2002 and Organic Law of Universities-LOU 4/2007 (Bologna plan)...**
- **Context: educational transfers in all regions in 2000 and differences in spending per student. Law 21/2001, Leveling Allocations financing system, Law 22/2009, new financing + tax assignments.**
- **Evolution of educational spending (*OECD Education at a glance*, Ministry of Education and CCAA). Δcontinued.**

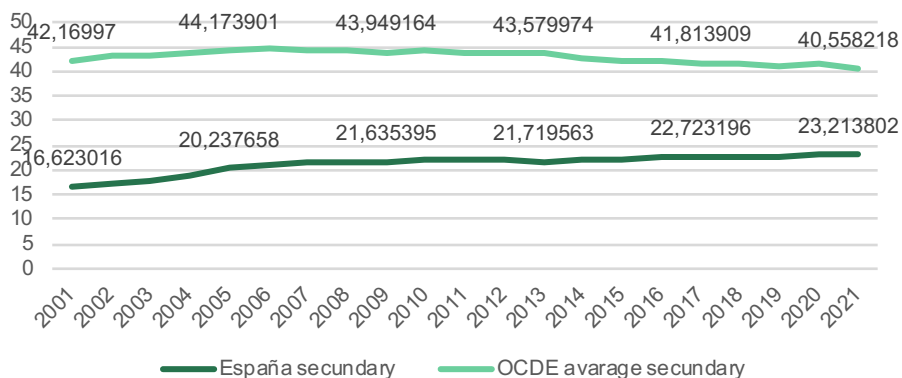
OECD Education at a Glance 2022

The Education at a Glance 2023 edition focuses on Vocational Training

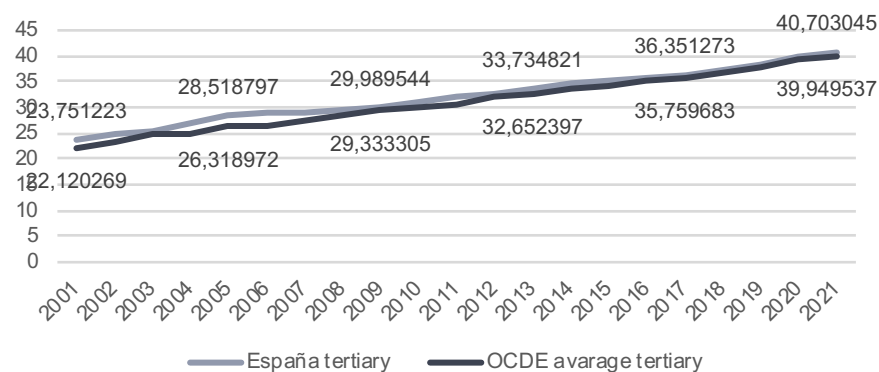
Adult Education Level-
Bellow upper secondary



Adult Education Level-
Secondary



Adult Education Level-Tertiary



The average share of 25-34 year-olds with a tertiary qualification increased from 27% in 2000 to 48% in 2021 across OECD countries. On average, tertiary education is now the most common attainment level among 25-34 year-olds and will soon be the most common among all working-age adults across the OECD. The increase in tertiary attainment was especially strong among women. Women now make up a clear majority of young adults with a bachelor's master's or doctoral degree, at 57% of 25-34 year-olds compared to 43% for their male peers.

Public provision of Education

TIME	2018		2019		2020	
ISCED11 (Labels)	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	Tertiary education (levels 5-8)	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	Tertiary education (levels 5-8)	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	Tertiary education (levels 5-8)
GEO (Labels)						
European Union - 27 countries (from 2020)	1,06	1,19	1,02	1,19	1,08	1,27
Belgium	1,71	1,49	1,67	1,53	1,80	1,62
Bulgaria	0,78	0,76	0,82	0,80	0,92	0,83
Czechia	0,91	0,92	0,93	0,93	0,99	0,86
Denmark	1,08	2,35	1,05	2,31	1,11	2,43
Germany	0,98	1,27	0,97	1,28	1,05	1,39
Estonia	0,84	1,18	0,70	1,09	0,64	1,13
Ireland	0,67	0,91	0,66	0,86	0,66	0,84
Greece	0,69	0,67	0,64	0,70	:	:
Spain	0,82	0,92	0,84	0,94	0,97	1,08
France	1,15	1,23	1,13	1,21	1,17	1,28
Croatia	0,85	0,86	0,83	0,86	0,95	0,97
Italy	1,37	0,77	1,13	0,78	1,24	0,88
Cyprus	1,27	0,95	1,15	0,89	1,26	0,91
Latvia	0,87	0,74	0,88	0,82	0,93	0,85
Lithuania	0,52	0,79	0,52	0,80	0,58	0,93
Luxembourg	0,81	0,41	0,84	0,45	0,88	0,46
Hungary	1,29	0,81	0,96	0,74	0,95	0,76
Malta	1,20	1,28	1,10	1,33	1,22	1,49
Netherlands	1,05	1,71	0,99	1,61	1,03	1,68
Austria	0,93	1,70	0,86	1,56	0,95	1,86
Poland	0,71	1,06	0,76	1,10	0,85	1,14
Portugal	0,98	0,78	1,05	0,79	1,07	0,87
Romania	0,68	0,75	0,76	0,81	0,76	0,81
Slovenia	0,92	1,01	0,91	1,02	0,97	1,16
Slovakia	0,83	0,76	0,88	0,78	0,99	0,90
Finland	1,24	1,54	1,25	1,51	1,31	1,59
Sweden	1,33	1,79	1,32	1,78	1,39	1,88

Fuente : Eurostat [EDUC_UOE_FINE06]

The differences in financing are not as significant as those enrolled.
What is happening?

Education at a Glance 2023. OECD Indicators y Eurostat

OBLIGATORY EDUCATION
(HUMAN CAPITAL STOCK
IT IS NOT VARIABLE FLOW)

We are still here with a target of 5% (European average)

TIME COFOG99 (Labels)	2022											
	Total	General public services	Defence	Public order and safety	Economic affairs	Environmental protection	Housing and community amenities	Health	Recreation, culture and religion	Education	Social protection	
GEO (Labels)												
European Union - 27 countries (from 2020)	49,6	6,0	1,3	1,7	5,9	0,8	1,0	7,7	1,1	4,7	19,5	
Euro area – 20 countries (from 2023)	50,5	6,1	1,2	1,7	5,8	0,9	1,0	7,9	1,1	4,6	20,1	
Euro area - 19 countries (2015-2022)	50,5	6,1	1,2	1,7	5,8	0,9	1,0	7,9	1,1	4,6	20,1	
Belgium	53,2	6,5	1,0	1,7	6,4	1,2	0,4	8,1	1,2	6,3	20,3	
Bulgaria	41,4	3,7	1,5	2,5	8,6	0,7	0,9	5,6	0,6	3,9	13,3	
Czechia	44,6	4,7	1,0	1,8	6,5	0,9	0,7	9,1	1,4	4,9	13,7	
Denmark	45,0	5,8	1,2	0,9	2,9	0,4	0,2	8,0	1,4	5,3	18,9	
Germany	49,5	6,2	1,0	1,7	5,2	0,6	0,5	8,5	1,0	4,5	20,4	
Estonia	39,8	3,7	2,2	1,8	4,7	0,5	0,5	6,0	1,9	5,8	12,7	
Ireland	21,2	2,1	0,2	0,7	2,0	0,3	0,5	4,9	0,4	2,7	7,5	
Greece	52,9	7,1	2,6	2,0	10,0	1,0	0,3	6,0	1,1	3,8	19,0	
Spain	47,4	5,8	1,1	1,9	5,7	1,0	0,5	6,9	1,2	4,4	18,8	
France	58,3	6,2	1,8	1,7	6,7	1,1	1,2	9,1	1,4	5,2	23,8	
Croatia	44,9	4,2	1,0	2,1	8,1	0,7	1,9	7,7	1,6	4,8	12,9	
Italy	56,1	8,6	1,3	1,8	6,2	1,0	3,3	7,1	0,8	4,1	21,9	
Cyprus	38,8	6,1	1,6	1,6	3,0	0,7	2,0	6,2	0,7	5,1	11,8	
Latvia	40,4	3,3	2,2	2,0	7,1	0,5	0,8	4,8	1,3	5,3	13,2	
Lithuania	36,4	2,8	2,1	1,2	4,2	0,6	0,6	5,2	1,2	4,9	13,5	
Luxembourg	43,9	4,8	0,5	1,2	5,5	1,0	0,5	5,4	1,2	4,7	19,1	
Hungary	48,8	8,2	1,4	2,0	10,5	0,6	0,8	4,4	2,7	5,1	13,1	
Malta	39,3	4,8	0,5	1,4	8,9	1,1	0,6	5,5	1,4	5,0	10,1	
Netherlands	43,5	3,7	1,3	1,9	5,4	1,4	0,5	7,5	1,2	5,1	15,5	
Austria	53,2	5,3	0,6	1,3	9,2	0,5	0,3	9,3	1,2	4,8	20,6	
Poland	43,9	4,4	1,6	2,3	6,5	0,6	0,5	5,3	1,1	4,6	16,9	
Portugal	44,1	5,7	0,7	1,6	4,8	0,7	0,5	7,1	0,9	4,3	17,5	
Romania	40,2	5,1	1,8	2,1	7,0	0,6	1,2	4,9	1,0	3,2	13,3	
Slovenia	47,2	4,7	1,2	1,6	5,9	0,9	0,5	7,6	1,5	5,6	17,6	
Slovakia	42,3	4,7	1,5	2,3	4,8	0,8	0,5	6,4	1,1	4,5	15,6	
Finland	53,3	7,7	1,3	1,1	4,6	0,2	0,4	7,4	1,4	5,5	23,5	
Sweden	47,5	6,5	1,6	1,3	4,8	0,6	0,7	6,9	1,3	6,3	17,5	

Table C1.1. Total expenditure on educational institutions per full-time equivalent student (2020)

In equivalent USD converted using PPPs for GDP, direct expenditure within educational institutions, by level of education

	Primary	Secondary					Post-secondary non-tertiary	Primary, secondary and post-secondary non-tertiary	Tertiary				Primary to tertiary	Primary to tertiary (excluding R&D)
		Lower secondary	Upper secondary			All secondary			Short-cycle tertiary	Bachelor's, master's and doctoral or equivalent	All tertiary	All tertiary (excluding R&D)		
			General programmes	Vocational programmes	All programmes									
OECD countries	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Australia	12 673	15 714	16 068	12 000	14 947	15 437	10 167	13 849	11 980	24 325	22 204	14 817	15 620	14 054
Austria	14 029	17 307	15 101	19 469	17 695	17 478	4 626	16 004	18 947	22 251	21 753	13 711	17 744	15 310
Belgium	12 813	16 635	15 579 ^d	17 315 ^d	16 543 ^d	16 576 ^d	x(3, 4, 5, 6)	14 920	13 659	22 917	22 555	14 791	16 429	14 894
Canada ^{1,2}	11 533 ^d	x(1)	x(5)	x(5)	14 520	14 520	m	12 460	16 632	28 707	24 363	m	15 443	m
Chile	5 917	6 153	5 147	8 639	5 720	5 868	a	5 893	5 296	12 252	10 458	10 082	7 184	7 077
Colombia ²	4 364	4 335	x(5)	x(5)	4 357	4 341	m	4 352	x(11)	x(11)	4 981	m	4 481	m
Costa Rica ³	m	m	m	m	m	m	m	a	m	x(11)	13 776	m	m	m
Czech Republic	8 466	12 760	11 313	12 799	12 374	12 579	2 221	10 858	31 028	16 190	16 237	10 067	11 846	10 713
Denmark	14 273	17 402	10 959	11 947	11 344	14 125	a	14 193	13 681	24 608	23 432	10 852	16 312	13 427
Estonia	10 309	10 563	5 318	8 357	6 584	8 522	9 686	9 426	a	17 930	17 930	10 982	11 088	9 730
Finland	11 212	17 726	9 973	10 352 ^d	10 238 ^d	12 849 ^d	x(4, 5, 6)	12 181	a	19 583	19 583	10 832	13 705	11 903
France	9 673	12 139	15 279	18 142	16 266	13 874	11 787	12 119	17 468	19 315	18 880	13 385	13 545	12 386
Germany ⁴	11 587	14 197	15 681	20 394 ^d	18 098 ^d	15 614	13 788	14 343	7 981	20 788	20 760	11 708	15 767	13 758
Greece ^{2,5}	7 467	7 364	5 749	8 127	6 458	6 901	m	7 175	a	4 300	4 300	2 603	6 146	5 539
Hungary	7 928	7 155	7 910	8 983	8 409	7 772	10 269	7 921	2 914	12 477	12 098	9 164	8 612	8 126
Iceland	15 206	17 077	12 148	18 829	13 822	15 242	18 191	15 262	16 128	16 128	16 128	m	15 444	m
Ireland	9 589	11 880	x(5)	x(5)	10 891	11 379	37 694	11 090	x(11)	x(11)	17 400	12 231	12 194	11 286
Israel	10 182	x(5)	x(5)	x(5)	9 562 ^d	9 562	523	9 823	5 571	15 617	12 314	8 731	10 279	9 624
Italy	12 008	9 760	x(5)	x(5)	11 059 ^d	10 569 ^d	x(5, 6)	11 096	4 697	12 746	12 663	8 691	11 439	10 570
Japan	10 057	11 618	x(5)	x(5)	12 458 ^d	12 047 ^d	x(5, 6, 9, 10, 11)	11 076	13 974 ^d	21 153 ^d	19 676 ^d	m	13 006	m
Korea	13 278	14 805	x(5)	x(5)	19 239	17 038	a	15 148	6 776	13 601	12 225	9 648	14 113	13 200
Latvia	7 142	7 157	8 572	10 760	9 460	8 302	11 433	7 765	12 543	13 121	13 043	9 966	8 907	8 241
Lithuania	8 173	8 128	8 204	12 351	9 260	8 426	12 535	8 463	a	13 629	13 629	9 767	9 622	8 756
Luxembourg	22 990	27 112	26 036	26 275	26 182	26 617	3 607	24 864	7 420	60 279	53 421	34 741	26 833	25 545
Mexico	2 750	2 411	3 033	3 785	3 296	2 770	a	2 760	x(11)	x(11)	5 887	5 193	3 239	3 132
Netherlands	11 188	15 364	13 260	17 865	16 324	15 848	a	13 855	12 485	21 779	21 642	13 715	15 714	13 822
New Zealand	8 438	9 286	11 819	10 133	11 425	10 223	8 067	9 350	12 053	20 747	19 567	15 471	11 119	10 410
Norway	15 631	15 631	16 573	20 353	18 527	17 229	24 488	16 484	21 086	24 474	24 374	15 218	18 207	16 208
Poland	11 872	8 696	7 420	8 903	8 251	8 485	5 841	9 415	7 474	14 490	14 488	9 936	10 447	9 521
Portugal	9 340	11 715	x(5)	x(5)	11 032 ^d	11 358 ^d	x(5, 6)	10 449	5 660	12 414	12 104	8 099	10 816	9 929
Slovak Republic	8 853	7 949	8 737	9 781	9 436	8 546	10 751	8 674	10 880	14 694	14 637	11 023	9 626	9 049
Slovenia	10 714	11 398	10 430	9 434	9 752	10 450	a	10 579	7 769	19 166	17 795	14 553	11 878	11 294
Spain	9 077	10 658	10 482	14 188 ^d	11 668 ^d	11 159 ^d	x(4, 5, 6)	10 173	10 770	15 354	14 361	10 795	11 123	10 314
Sweden	13 997	13 857	12 198	16 797	13 939	13 902	8 263	13 865	7 011	28 443	26 215	12 391	15 994	13 611
Switzerland	m	m	x(5)	x(5)	19 973 ^d	m	x(5)	m	m	m	m	m	m	m
Türkiye	4 108	4 037	4 248	6 485	5 109	4 603	a	4 446	x(11)	x(11)	9 288	7 418	5 352	5 002
United Kingdom	12 513	12 716	14 609	14 370	14 539	13 695	a	13 141	29 292	29 552	29 534	23 814	16 052	15 036
United States	14 321	15 302	16 775	a	16 775	16 018	15 774	15 186	x(11)	x(11)	36 172	31 795	19 973	18 974
OECD average	10 658	11 941	11 379	13 216	12 312	11 942	m	11 352	12 266	19 775	18 105	12 693	12 647	11 576

Public Expenditure on Education. Education system

PUBLIC EDUCATION REFORMS. MEASURES

NON-UNIVERSITY EDUCATION (Improve school performance or % does not repeat a year/ ∇ school failure *Spain (2.2%) is in the group of countries with the highest percentage of repeat students in Primary Education, only behind Luxembourg (3.6%), Austria (3.4%), the Slovak Republic (2.8%). % and Portugal (2.4%). In first stage Secondary Education, Spain (8.7%)* (*State system of education indicators 2023*) *School dropout in Spain is 13.9% and Europe is 9.6%* (*Report on Spain from the Education and Training Monitor of 2023*) <https://op.europa.eu/webpub/eac/education-and-training-monitor-2023/es/index.html>

- Δ average performance (mathematics, science,...) with Δ spending per student.
- ∇ teacher/student ratio, pedagogical training of teachers, individualized treatment of students and specific recovery programs for failed students.
- Other factors (exogenous): Socioeconomic characteristics of the student (family or material environment) or average level of the class (*peer group effect*) and not to segregate students by economic level.
- +Evaluation of the quality of the educational system and incentives for competition between centers (objective and publish them).

Public Expenditure on Education. Education system

- **PISA report (*Program for International Student Assessment*): OECD study measures academic performance in mathematics, science and reading (15-year-old students with standardized tests every 3 years by country but only quantitative). PISA 2020. SPAIN BELOW OECD AVERAGE**
<http://www.oecd.org/PISA>

Figure 1. Trends in performance in mathematics, reading and science



Public Expenditure on Education. Education system

PUBLIC EDUCATION REFORMS. MEASURES UNIVERSITY EDUCATION (improve quality):

- **Financing Reform: Δ public fees (15-25% total), system of public credits to be repaid in the future by students according to the income they obtain and Δ public scholarships (for those with fewer resources).**
- **Encouraging teaching+research quality: competition between universities (Spain 12 students/teacher and unbalanced by careers, Europe has 17) and link part of professors' remuneration to results.**
- **Competition to attract students (periodic and public evaluation of the quality of universities, single university district, extensive system of scholarships & loans \Rightarrow mobility) and attract public funding (quality indicators and number of students).**
- ***According to the U-Ranking of the BBVA Foundation and IVIE, UC in (2023) rises to 4th place in "Global Performance". <https://www.u-ranking.es/ranking>***

Public Expenditure on Education. Education system

PUBLIC EDUCATION REFORMS. MEASURES

GRANTS AND SCHOOL VOUCHERS:

- **Education financing system and the Public Sector allocates to families an amount of money per child at school age.**
- **The Public Sector finances education for citizens, but instead of financing educational centers, it finances students, who are the true subjects of the right to education. The amount given to families would be in relation to the average cost of a school place.**
- **In modern conception it was raised for the 1st time by Milton Friedman in “*The role of the Government in Education*” in 1955 and various authors took it up again.**

Public Expenditure on Education. Education system

PUBLIC EDUCATION REFORMS. MEASURES

SUBSIDIES AND SCHOOL VOUCHERS (CASES):

- **USA:** Milwaukee, Cleveland, Maine, Vermont, Florida, Colorado and Washington, for needy families (with income < \$36,000 in a 4-member household) has allowed 1,023 students to choose between 53 socially owned schools that were in the program.
- **In Europe:** School voucher in Italy, Sweden (introduced in 1992 and chooses between state or social initiative schools and finances 85% of the cost) and Denmark is similar. And in Chile and N.Zealand. **England:** for nurseries and social initiative schools.
- **What have been the EFFECTS in practice?**
- **Some argue:** it reduces Public Expenditure but improves Quality. **USA:** social experiments in deprived neighborhoods with conflictive schools. Detractors criticize lack of attention given in rural or marginal areas.
- **Sandel (2020):** Meritocracy (rhetoric of promotion) generates complacency among winners and imposes harsh results on losers. Hence, another way of thinking success, ethics of humility and solidarity and policies focused on **COMMON BENEFIT.**

4. Current trends in economics of education

- **MERIT GOODS: THE PUBLIC SECTOR** subsidizes them or provides them for free as they are essential for a dignified life. Public provision EDUCATION (Preferential Goods, internalize externalities and ∇ economic inequalities).
- **Human Capital Theory and Filter Theory** \Rightarrow those of +education \Rightarrow +high income.
- **Non-university education** (depends on school performance) and **university education** (highly subsidized, which is not fair).

TRENDS:

- **Relations between Economy and Education** in certain reports and analyzes of international Organizations.
- **Education as an educational service.** World Trade Organization and General Agreement on the Marketing of Services. Education as a public service and as a citizen's right.
- **Ethics, Economy and Education.** Practical lines of educational action on Economy for development, fair trade and ethical banking.