Il capitale umano

lezione 5

Capitale umano

- capitale umano =
  - competenze acquisite a scuola
  - competenze acquisite sul posto di lavoro (esperienza)
  - competenza acquisite altrove
- il capitale umano è un capitale (Becker, anni '60)
  - si accumula (attraverso l'istruzione...)

Accumulare capitale umano

- il meccanismo principale di accumulazione del capitale umano è l’istruzione
- quanta istruzione è ottimale acquisire?
  - si acquisisce istruzione sino al punto in cui i benefici marginali dell’istruzione eguagliano i costi marginali dell’istruzione

... in Italiano ...

- l'istruzione ha un costo:
  - costi diretti (tasse, libri, affitto, trasporti, mensa...)
  - costi opportunità: andare a scuola tipicamente impedisce di lavorare e ottenere uno stipendio
  - costi "psichici" dovuti alla fatica, all'impegno...
- più anni di istruzione si acquisiscono più aumentano i costi totali dell'istruzione
- il costo di un ulteriore anno di istruzione, quando sono già stati acquisiti N anni di

Costi

€

costi totali dell’istruzione

anni di istruzione

… in Italiano …

- L’istruzione comporta benefici:
  - maggiore istruzione implica maggiore capitale umano e quindi maggiore produttività del lavoro ◊ salari più elevati per tutto il corso della vita
  - (l’istruzione accresce anche il “valore” dell’esperienza ◊ il divario tra lavoratori molti istruiti e poco istruiti tende ad aumentare nel tempo)
  - l’istruzione potrebbe essere piacevole *per sè*

I benefici totali dell’istruzione crescono

Costi e Benefici

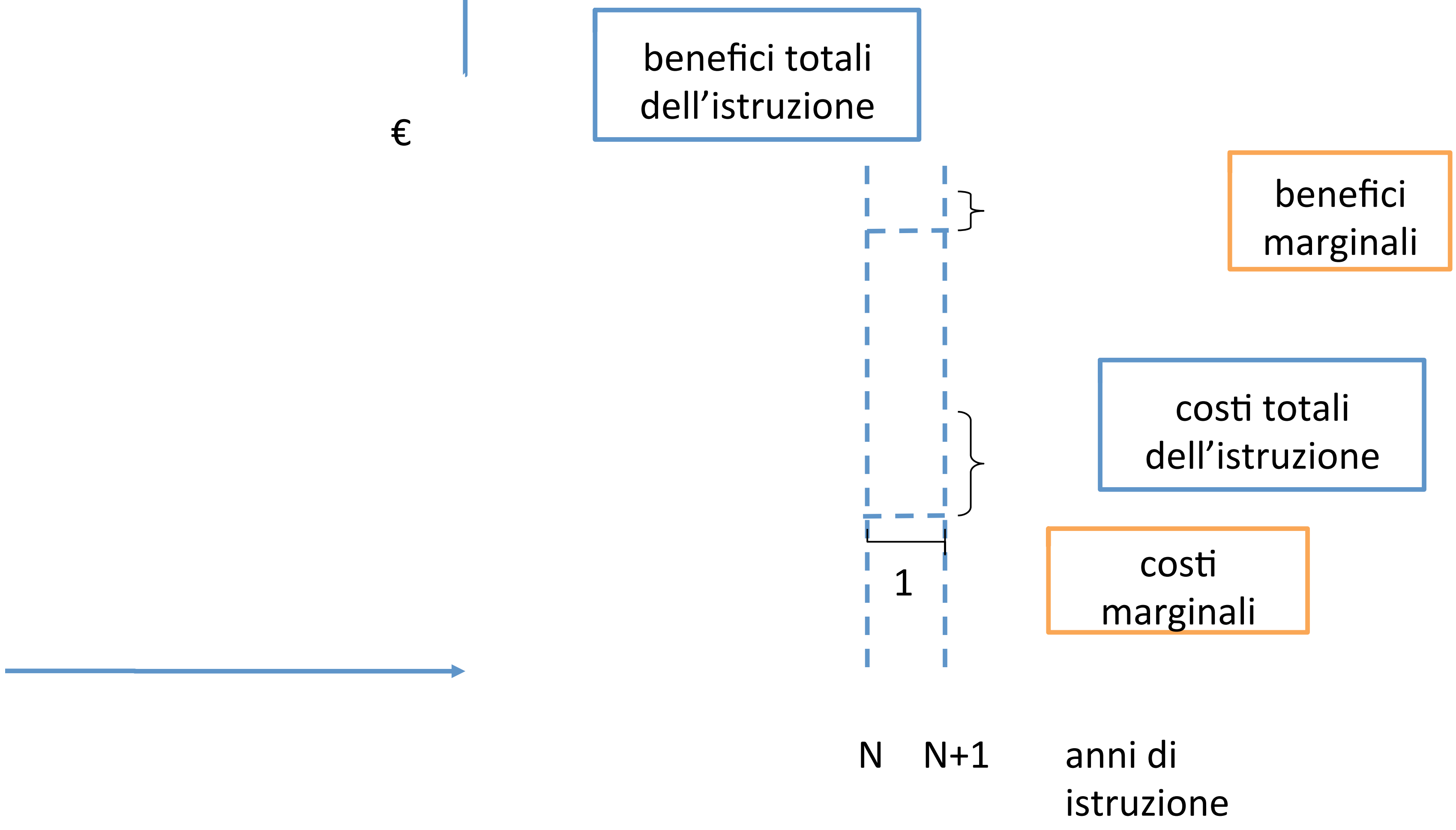
benefici totali
dell'istruzione

€

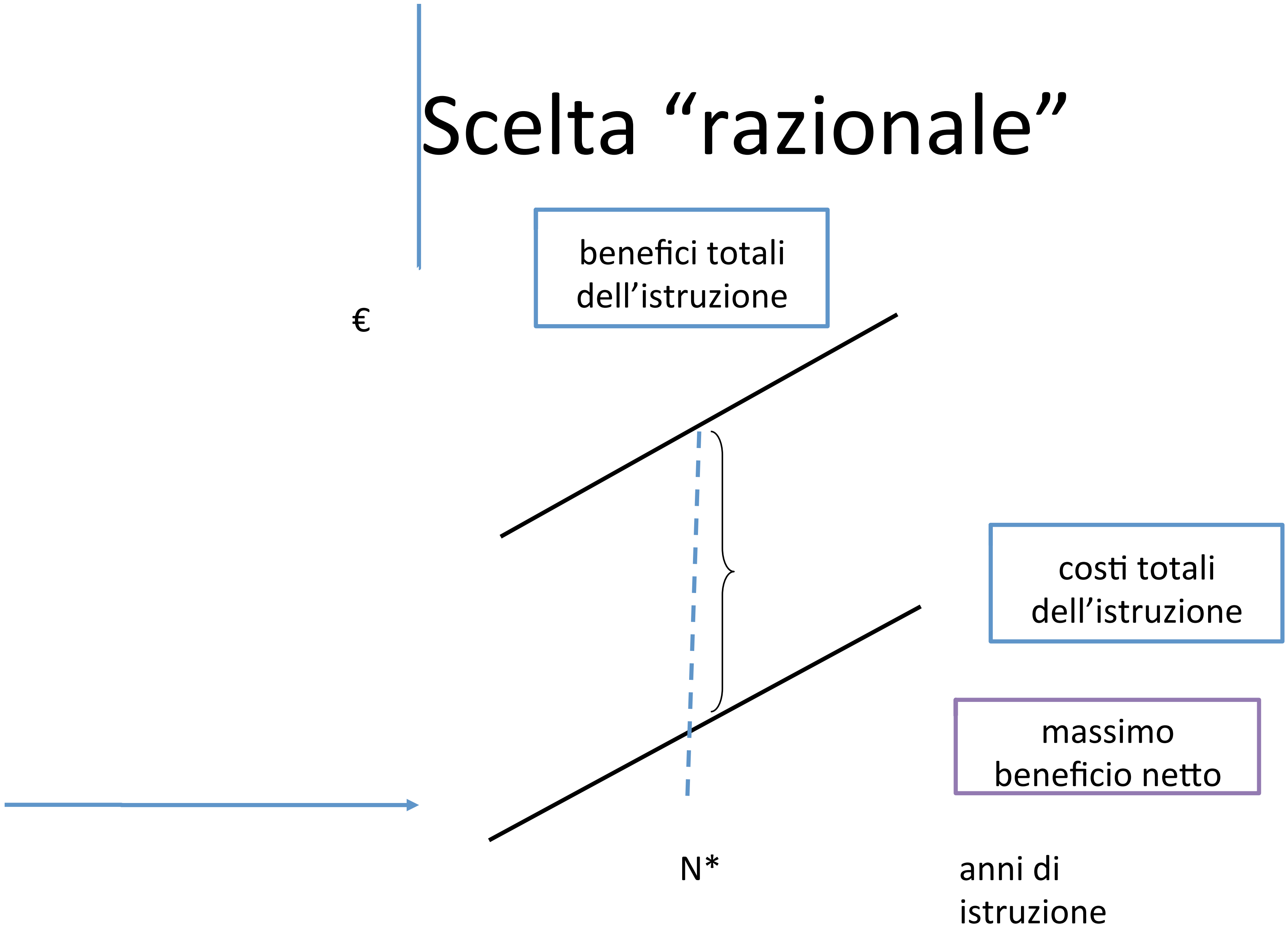
costi totali
dell'istruzione

anni di
istruzione

Costi e Benefici

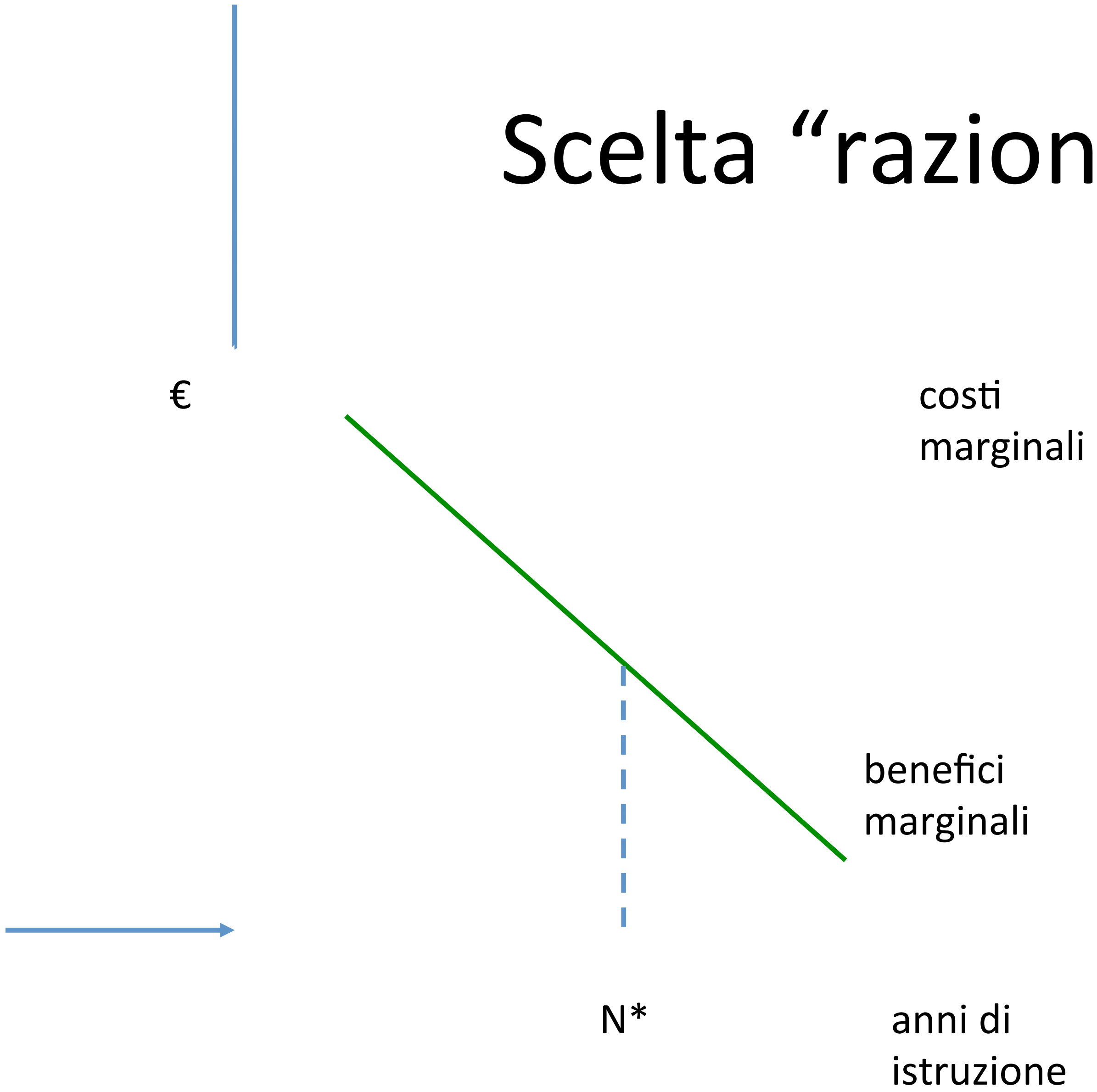


Scelta “razionale”



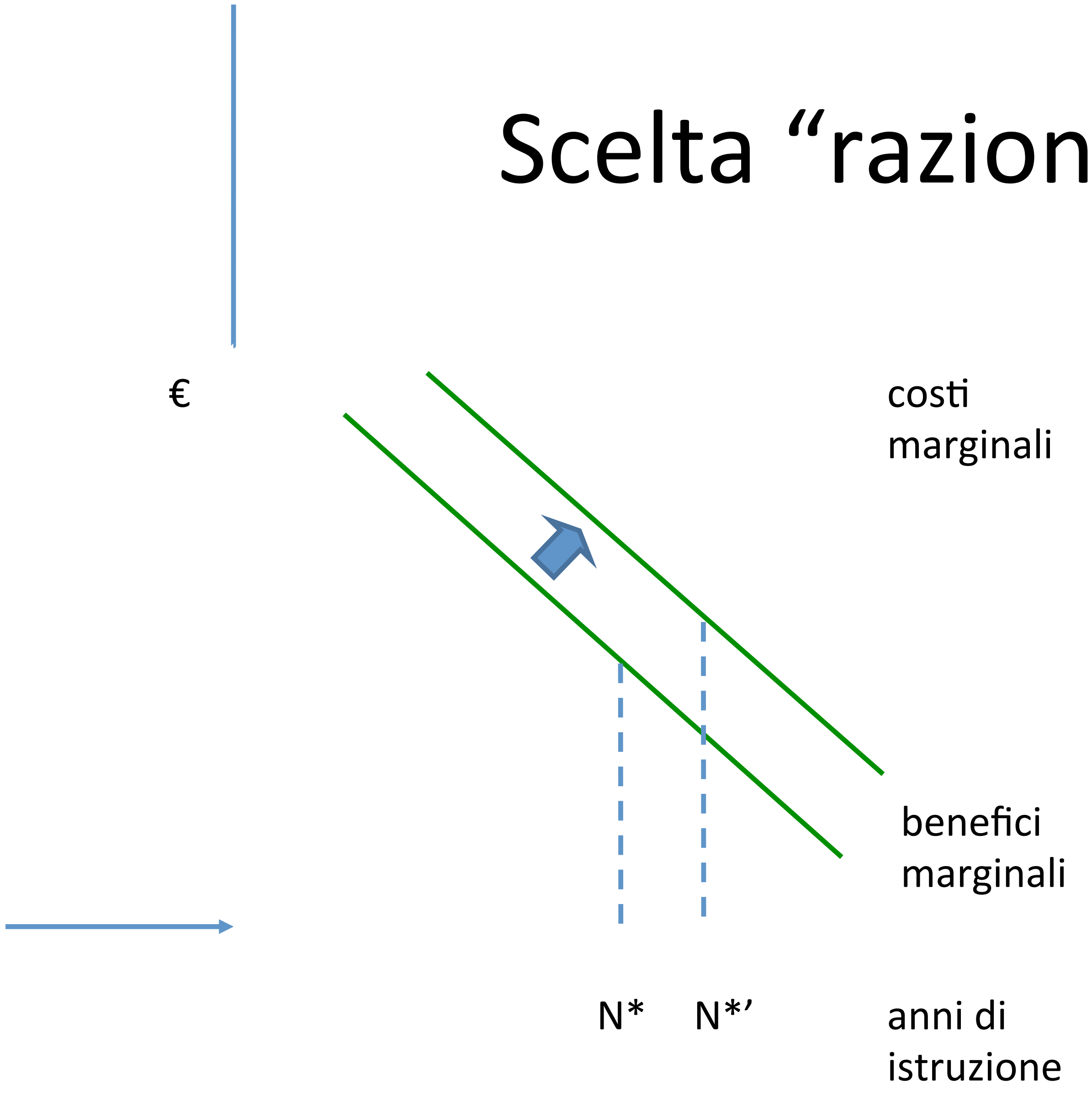
Nel punto di ottimo:
BENEFICI MARGINALI = COSTI MARGINALI

Scelta "razionale"



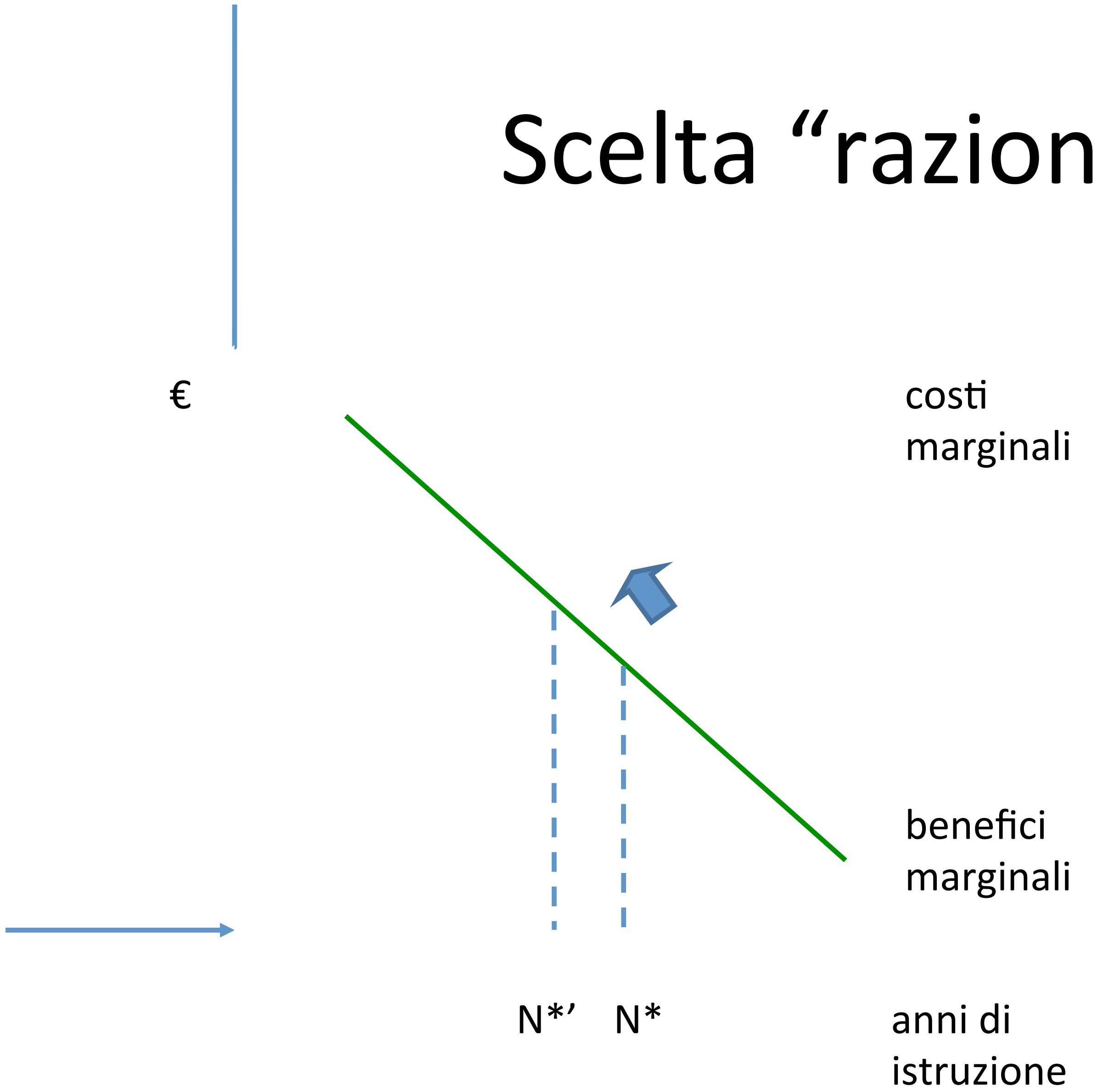
in modo equivalente, in termini di benefici e costi marginali

Scelta “razionale”



Se aumentano i benefici marginali ◊ aumenta la quantità di istruzione scelta

Scelta "razionale"



Se aumentano i costi marginali ◊ diminuisce la quantità di istruzione scelta

Il rendimento dell'istruzione

L'istruzione rende perché:

1) aumenta nei lavoratori la dotazione di competenze domandate dalle imprese (Becker, 1966). E' ovvio?

2) segnala alle imprese le capacità innate del lavoratore (abilità), la sua motivazione, la sua perseveranza (Spence, 1979)

Table A5.1. [1/2] Socio-economic background and reading performance

Results based on students' self-reports

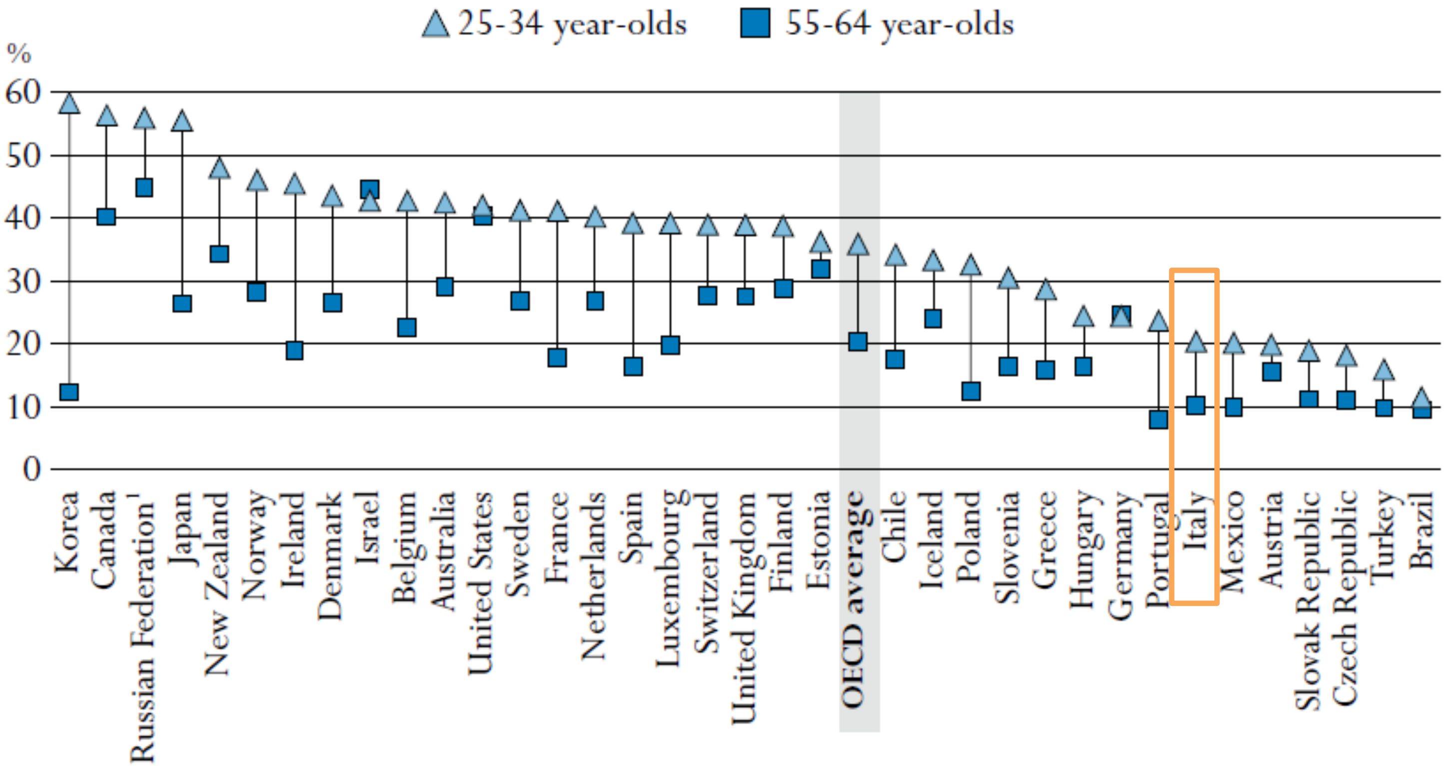
		PISA index of economic, social and cultural status (ESCS)										Performance on the reading scale, by national quarters of this index							
		All students		Bottom quarter		Second quarter		Third quarter		Top quarter		Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	0.34	(0.01)	-0.63	(0.01)	0.09	(0.00)	0.63	(0.00)	1.29	(0.01)	**471**	(2.7)	504	(2.4)	532	(3.0)	**562**	(3.1)
	Austria	0.06	(0.02)	-0.97	(0.02)	-0.22	(0.00)	0.28	(0.00)	1.15	(0.01)	**421**	(4.3)	457	(4.2)	482	(3.8)	**525**	(3.9)
	Belgium	0.20	(0.02)	-1.00	(0.02)	-0.13	(0.00)	0.54	(0.00)	1.37	(0.01)	**452**	(3.3)	489	(3.3)	525	(2.5)	**567**	(2.6)
	Canada	0.50	(0.02)	-0.59	(0.01)	0.25	(0.00)	0.83	(0.00)	1.52	(0.01)	**495**	(2.3)	514	(1.7)	533	(2.1)	**562**	(2.4)
	Chile	-0.57	(0.04)	-2.00	(0.01)	-1.00	(0.01)	-0.22	(0.01)	0.95	(0.02)	**409**	(3.5)	435	(3.6)	457	(3.5)	**501**	(3.5)
	Czech Republic	-0.09	(0.01)	-0.95	(0.01)	-0.34	(0.00)	0.11	(0.00)	0.85	(0.01)	**437**	(3.3)	467	(3.7)	490	(3.4)	**521**	(4.1)
	Denmark	0.30	(0.02)	-0.83	(0.01)	0.00	(0.01)	0.62	(0.01)	1.39	(0.01)	**455**	(2.7)	486	(3.4)	509	(2.9)	**536**	(2.4)
	Estonia	0.15	(0.02)	-0.87	(0.01)	-0.16	(0.01)	0.45	(0.01)	1.19	(0.01)	**476**	(3.6)	490	(3.5)	505	(3.1)	**534**	(3.9)
	Finland	0.37	(0.02)	-0.64	(0.01)	0.12	(0.00)	0.69	(0.00)	1.32	(0.01)	**504**	(3.2)	527	(2.7)	548	(2.9)	**565**	(2.8)
	France	-0.13	(0.03)	-1.19	(0.02)	-0.42	(0.00)	0.15	(0.01)	0.93	(0.02)	**443**	(5.2)	484	(4.6)	513	(4.4)	**553**	(4.8)
	Germany	0.18	(0.02)	-0.93	(0.02)	-0.12	(0.00)	0.42	(0.01)	1.36	(0.01)	**445**	(3.9)	494	(2.9)	515	(3.5)	**550**	(3.3)
	Greece	-0.02	(0.03)	-1.28	(0.02)	-0.40	(0.01)	0.32	(0.01)	1.27	(0.01)	**437**	(7.1)	475	(5.2)	493	(3.7)	**528**	(3.4)
	Hungary	-0.20	(0.03)	-1.38	(0.03)	-0.56	(0.00)	0.06	(0.01)	1.10	(0.02)	**435**	(5.3)	485	(3.4)	505	(4.1)	**553**	(4.1)
	Iceland	0.72	(0.01)	-0.46	(0.02)	0.45	(0.01)	1.10	(0.01)	1.79	(0.01)	**470**	(3.1)	494	(3.3)	513	(3.0)	**530**	(2.8)
	Ireland	0.05	(0.03)	-1.01	(0.01)	-0.27	(0.01)	0.31	(0.01)	1.15	(0.02)	**454**	(3.8)	486	(4.0)	511	(3.9)	**539**	(3.5)
	Israel	-0.02	(0.03)	-1.20	(0.02)	-0.24	(0.01)	0.33	(0.00)	1.01	(0.01)	**423**	(5.4)	465	(4.0)	501	(3.6)	**526**	(4.1)
	Italy	-0.12	(0.01)	-1.41	(0.01)	-0.47	(0.00)	0.18	(0.00)	1.21	(0.01)	**442**	(3.0)	477	(2.0)	500	(2.0)	**526**	(2.1)
	Japan	-0.01	(0.01)	-0.93	(0.01)	-0.28	(0.00)	0.24	(0.00)	0.93	(0.01)	**483**	(4.8)	510	(4.8)	536	(4.0)	**558**	(3.5)
	Korea	-0.15	(0.03)	-1.22	(0.01)	-0.42	(0.01)	0.14	(0.01)	0.88	(0.02)	**503**	(5.1)	534	(2.8)	548	(3.9)	**572**	(4.6)
	Luxembourg	0.19	(0.01)	-1.31	(0.02)	-0.09	(0.01)	0.64	(0.01)	1.51	(0.01)	**411**	(2.7)	460	(3.0)	497	(2.8)	**526**	(3.0)
	Mexico	-1.22	(0.03)	-2.83	(0.01)	-1.79	(0.00)	-0.81	(0.01)	0.54	(0.02)	**386**	(2.8)	413	(2.3)	434	(2.2)	**469**	(2.2)
	Netherlands	0.27	(0.03)	-0.84	(0.03)	0.01	(0.01)	0.61	(0.01)	1.31	(0.01)	**474**	(5.5)	493	(5.8)	519	(4.7)	**553**	(5.9)
	New Zealand	0.09	(0.02)	-0.93	(0.01)	-0.17	(0.00)	0.36	(0.01)	1.08	(0.01)	**475**	(3.9)	508	(3.1)	534	(3.3)	**578**	(3.6)
	Norway	0.47	(0.02)	-0.47	(0.01)	0.23	(0.00)	0.73	(0.00)	1.40	(0.01)	**468**	(3.4)	495	(3.3)	517	(2.9)	**536**	(3.9)
	Poland	-0.28	(0.02)	-1.29	(0.01)	-0.66	(0.00)	-0.15	(0.00)	0.97	(0.01)	**461**	(3.4)	488	(3.1)	507	(2.9)	**550**	(3.8)
	Portugal	-0.32	(0.04)	-1.70	(0.01)	-0.87	(0.01)	-0.05	(0.01)	1.35	(0.03)	**451**	(4.2)	472	(3.4)	499	(3.4)	**537**	(3.7)
	Slovak Republic	-0.09	(0.02)	-1.04	(0.02)	-0.44	(0.00)	0.04	(0.01)	1.07	(0.02)	**435**	(5.0)	468	(3.4)	488	(3.3)	**521**	(3.6)
	Slovenia	0.07	(0.01)	-1.01	(0.01)	-0.31	(0.01)	0.37	(0.01)	1.25	(0.01)	**444**	(2.6)	468	(2.5)	493	(2.7)	**532**	(2.6)
	Spain	-0.31	(0.03)	-1.68	(0.02)	-0.74	(0.00)	0.03	(0.01)	1.14	(0.01)	**443**	(3.3)	468	(2.3)	491	(2.2)	**525**	(3.3)
	Sweden	0.33	(0.02)	-0.72	(0.02)	0.08	(0.00)	0.63	(0.01)	1.33	(0.01)	**452**	(4.0)	488	(3.3)	515	(3.3)	**543**	(4.1)
	Switzerland	0.08	(0.02)	-1.04	(0.01)	-0.22	(0.00)	0.35	(0.00)	1.22	(0.01)	**457**	(3.9)	492	(2.7)	506	(3.0)	**550**	(3.7)
	Turkey	-1.16	(0.05)	-2.63	(0.02)	-1.69	(0.01)	-0.82	(0.01)	0.49	(0.03)	**422**	(3.8)	454	(3.5)	469	(3.9)	**514**	(4.6)
	United Kingdom	0.20	(0.02)	-0.80	(0.02)	-0.06	(0.00)	0.47	(0.01)	1.21	(0.01)	**451**	(2.9)	483	(3.1)	508	(2.7)	**544**	(3.2)
	United States	0.17	(0.04)	-1.05	(0.02)	-0.11	(0.01)	0.52	(0.01)	1.32	(0.02)	**451**	(3.6)	481	(3.6)	512	(3.6)	**558**	(4.7)
	OECD average	0.00	(0.00)	-1.14	(0.00)	-0.32	(0.00)	0.30	(0.00)	1.17	(0.00)	**451**	(0.7)	483	(0.6)	506	(0.6)	**540**	(0.6)
Other G20	Argentina	-0.62	(0.05)	-2.17	(0.03)	-1.02	(0.01)	-0.19	(0.01)	0.92	(0.03)	**345**	(4.9)	377	(4.6)	410	(5.5)	**468**	(6.2)
	Brazil	-1.16	(0.03)	-2.69	(0.01)	-1.64	(0.01)	-0.76	(0.01)	0.44	(0.02)	**376**	(2.5)	401	(3.0)	413	(3.9)	**460**	(4.1)
	Indonesia	-1.55	(0.06)	-2.86	(0.01)	-2.05	(0.01)	-1.26	(0.01)	-0.04	(0.03)	**386**	(3.8)	389	(3.6)	402	(4.5)	**430**	(6.0)
	Russian Federation	-0.21	(0.02)	-1.20	(0.01)	-0.56	(0.00)	0.06	(0.00)	0.85	(0.01)	**424**	(3.6)	447	(3.9)	466	(3.5)	**502**	(4.9)
	Shanghai-China	-0.49	(0.04)	-1.83	(0.02)	-0.88	(0.01)	-0.11	(0.01)	0.86	(0.01)	**521**	(4.3)	546	(3.3)	564	(2.5)	**594**	(3.4)

Capitale umano e mercato del lavoro
I numeri

Chart A1.1. Population that has attained tertiary education (2008)

Percentuale di laureati nella coorte 25-35 e nella coorte 55-64

Tertiary attainment levels have increased considerably over the past 30 years. In almost all countries, 25-34 year-olds have higher tertiary attainment levels than the generation about to leave the labour market (55-64 year-olds). On average across OECD countries, 35% of the younger cohort has completed tertiary education, compared with 20% of the oldest cohort. The expansion of the tertiary sector has put Japan and Korea in the top group together with Canada and the partner country the Russian Federation, with over 50% of the younger cohort with tertiary education.

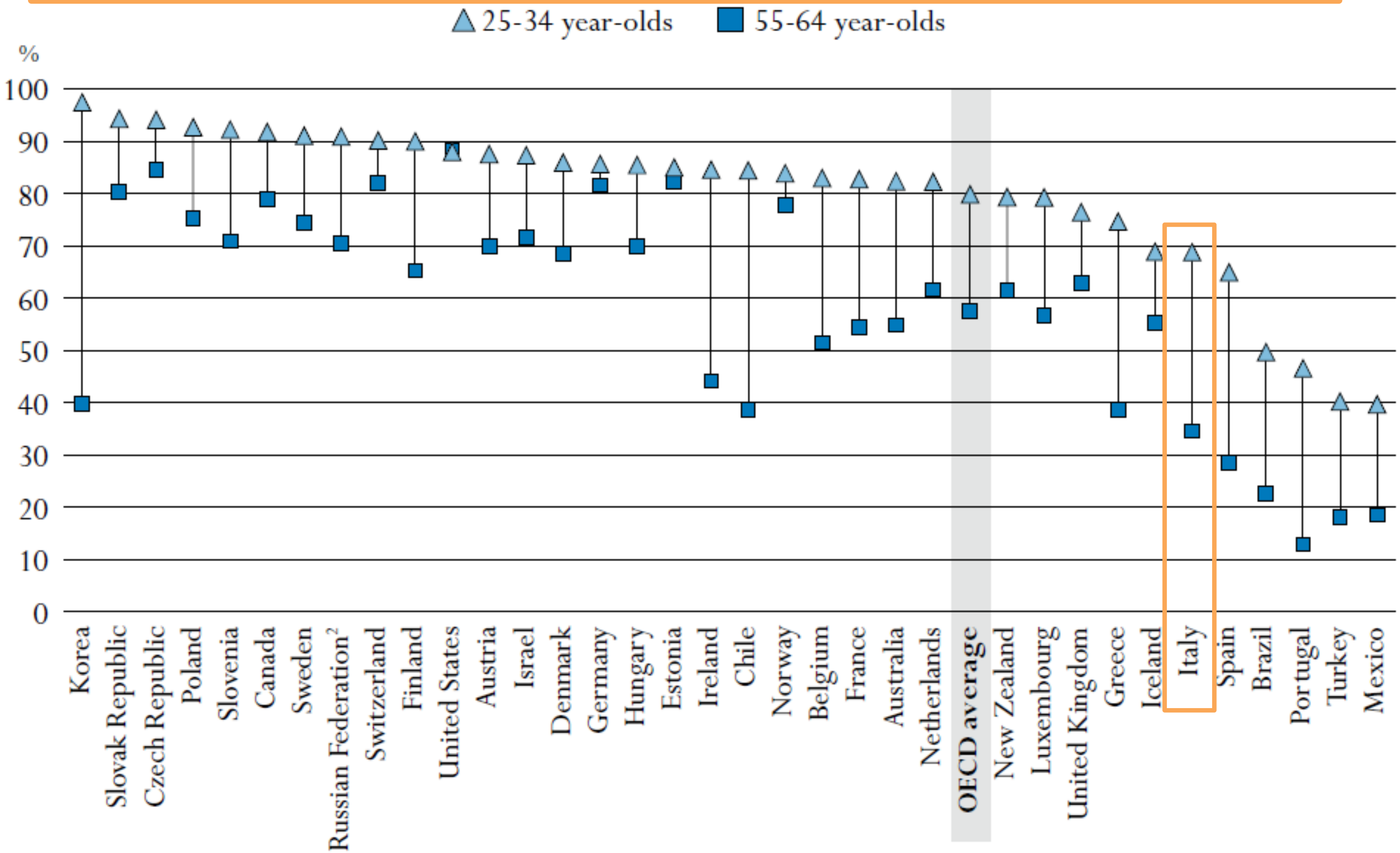


1. Year of reference 2002.

Countries are ranked in descending order of the percentage of 25-34 year-olds who have attained tertiary education.

Chart A1.2. Population that has attained at least upper secondary education[1] (2008)

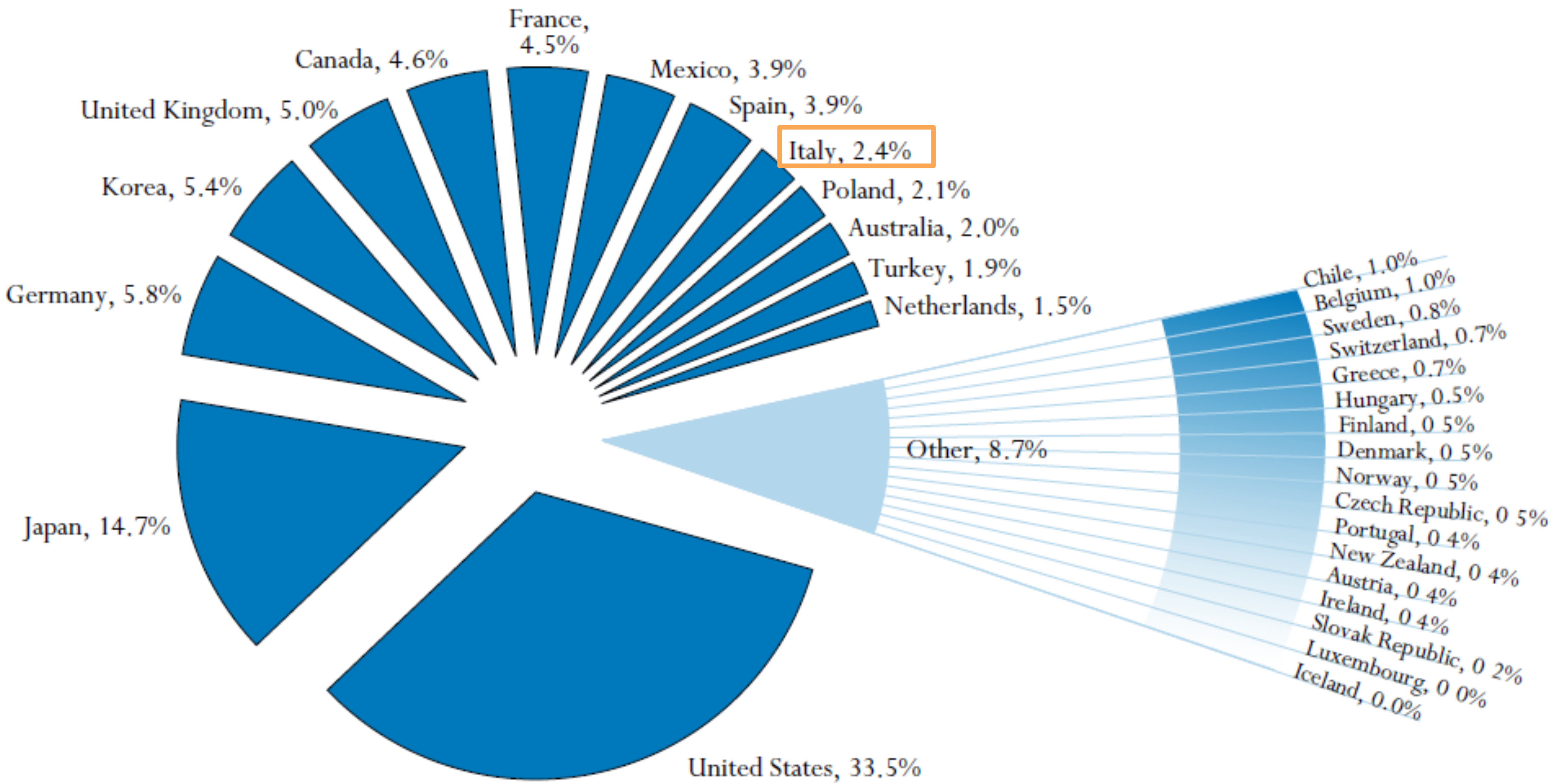
Percentuale di diplomati e laureati nella coorte 25-35 e nella coorte 55-64



1. Excluding ISCED 3C short programmes.
2. Year of reference 2002.

Countries are ranked in descending order of the percentage of 25-34 year-olds who have attained at least upper secondary education.

Chart A1.4. Countries' share in the total OECD 25-64 year-old population with tertiary education, in percentage (2008)



Source: OECD. Table A1.3a. See Annex 3 for notes *(www.oecd.org/edu/eag2010)*.

Table A1.2a.

Population with at least upper secondary education[1] (2008)

Percentage, by age group

		Age group				
		25-64	25-34	35-44	45-54	55-64
		(1)	(2)	(3)	(4)	(5)
OECD countries	Australia	70	82	73	66	55
	Austria	81	88	85	79	71
	Belgium	70	83	77	64	52
	Canada	87	92	90	86	80
	Chile	68	85	74	65	39
	Czech Republic	91	94	94	90	85
	Denmark	75	85	80	69	63
	Finland	81	90	88	82	66
	France	70	83	77	64	55
	Germany	85	86	87	86	82
	Greece	61	75	69	56	39
	Hungary	80	86	83	78	70
	Iceland	64	69	68	61	56
	Ireland	69	85	75	62	45
	Italy	53	69	57	49	35
	Korea	79	98	93	68	40
	Luxembourg	68	79	70	63	57
	Mexico	34	40	36	30	19
	Netherlands	73	82	77	71	62
	New Zealand	72	79	74	71	62
	Norway	81	84	82	78	78
	Poland	87	93	91	87	76
	Portugal	28	47	29	20	13
	Slovak Republic	90	94	93	88	81
	Spain	51	65	57	45	29
	Sweden	85	91	90	84	75
	Switzerland	87	90	88	85	83
	Turkey	30	40	27	24	19
	United Kingdom	70	77	70	67	63
	United States	89	88	89	89	89
	OECD average	*71*	*80*	*75*	*68*	*58*
	EU19 average	*72*	*82*	*76*	*69*	*59*
Partner countries	Brazil	39	50	40	33	23
	Estonia	88	85	93	92	83
	Israel	81	87	84	77	72
	Russian Federation[2]	88	91	94	89	71
	Slovenia	82	92	85	78	71

Table A1.3a.

Population with tertiary education (2008)

Percentage of the population that has attained tertiary-type B education or tertiary-type A and advanced research programmes, by age group
Column 16 refers to absolute numbers in thousands.

		Tertiary-type B education					Tertiary-type A and advanced research programmes					Total tertiary					
		25-64	25-34	35-44	45-54	55-64	25-64	25-34	35-44	45-54	55-64	25-64	25-34	35-44	45-54	55-64	25-64 in thousands
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD countries	Australia	10	10	11	11	10	26	32	27	23	19	36	42	38	33	28	3 913
	Austria	7	6	8	8	7	11	13	12	9	8	18	19	19	18	15	828
	Belgium	16	20	17	15	12	16	23	18	14	10	32	42	35	29	22	1 866
	Canada	24	26	26	23	19	25	30	28	21	21	49	56	54	44	40	8 922
	Chile	8	11	11	7	3	16	22	14	13	14	24	34	24	20	17	1 964
	Czech Republic	x(11)	x(12)	x(13)	x(14)	x(15)	14	18	14	15	11	14	18	14	15	11	880
	Denmark	7	8	8	7	5	27	35	29	25	21	34	43	37	32	26	998
	Finland	15	5	20	19	15	22	33	24	17	14	37	38	44	37	29	1 052
	France	11	17	13	9	6	16	24	18	12	12	27	41	31	20	17	8 814
	Germany	9	6	9	10	9	16	17	17	16	15	25	24	27	26	24	11 315
	Greece	7	10	8	5	3	17	19	19	16	13	23	28	27	22	15	1 425
	Hungary	n	1	n	n	n	19	23	19	17	16	19	24	19	17	16	1 069
	Iceland	3	2	4	4	3	28	31	32	26	21	31	33	36	30	24	51
	Ireland	12	14	13	10	7	22	31	23	17	12	34	45	37	27	19	792
	Italy	n	n	1	n	n	14	20	15	12	10	14	20	15	12	10	4 754
	Japan	19	24	23	18	10	24	31	26	25	16	43	55	48	43	26	28 790
	Korea	11	23	11	4	1	26	35	32	19	11	37	58	43	23	12	10 470
	Luxembourg	8	11	7	7	6	20	28	22	15	13	28	39	28	22	19	73
	Mexico	1	1	1	1	1	15	19	15	14	9	16	20	16	15	10	7 675
	Netherlands	2	2	3	2	2	30	38	30	28	24	32	40	33	31	26	2 871
	New Zealand	15	14	14	16	16	25	34	26	22	18	40	48	40	38	34	839
	Norway	2	2	2	3	3	34	44	36	29	25	36	46	38	32	28	894
	Poland	x(11)	x(12)	x(13)	x(14)	x(15)	20	32	19	13	12	20	32	19	13	12	4 082
	Portugal	x(11)	x(12)	x(13)	x(14)	x(15)	14	23	15	10	8	14	23	15	10	8	847
	Slovak Republic	1	1	1	1	1	14	18	13	13	10	15	18	14	14	11	451
	Spain	9	13	11	7	4	20	26	22	17	12	29	39	33	24	16	7 663
	Sweden	9	8	8	9	9	23	32	24	19	18	32	41	33	28	26	1 541
	Switzerland	10	10	11	11	9	23	29	25	21	18	34	38	36	31	27	1 433
	Turkey	x(11)	x(12)	x(13)	x(14)	x(15)	12	15	11	10	9	12	15	11	10	9	3 754
	United Kingdom	9	8	10	10	9	24	31	23	20	19	33	38	33	30	27	9 844
	United States	10	9	10	10	9	32	32	33	30	31	41	42	43	40	40	65 569
	OECD average	*9*	*10*	*10*	*9*	*7*	*21*	*27*	*22*	*18*	*15*	*28*	*35*	*29*	*25*	*20*	
	OECD total (in thousands)																*195 438*
	EU19 average	*9*	*9*	*9*	*9*	*7*	*20*	*26*	*21*	*17*	*14*	*27*	*34*	*26*	*22*	*18*	
Partner countries	Brazil	x(11)	x(12)	x(13)	x(14)	x(15)	11	11	12	11	9	11	11	12	11	9	
	Estonia	12	12	12	12	11	22	23	23	22	21	34	36	35	35	32	
	Israel	15	13	16	16	17	29	29	30	28	28	44	42	46	44	44	
	Russian Federation[1]	33	34	37	34	26	21	21	21	20	19	54	55	58	54	44	
	Slovenia	11	12	11	11	9	12	18	12	9	7	23	30	24	20	16	

Table A1.5.

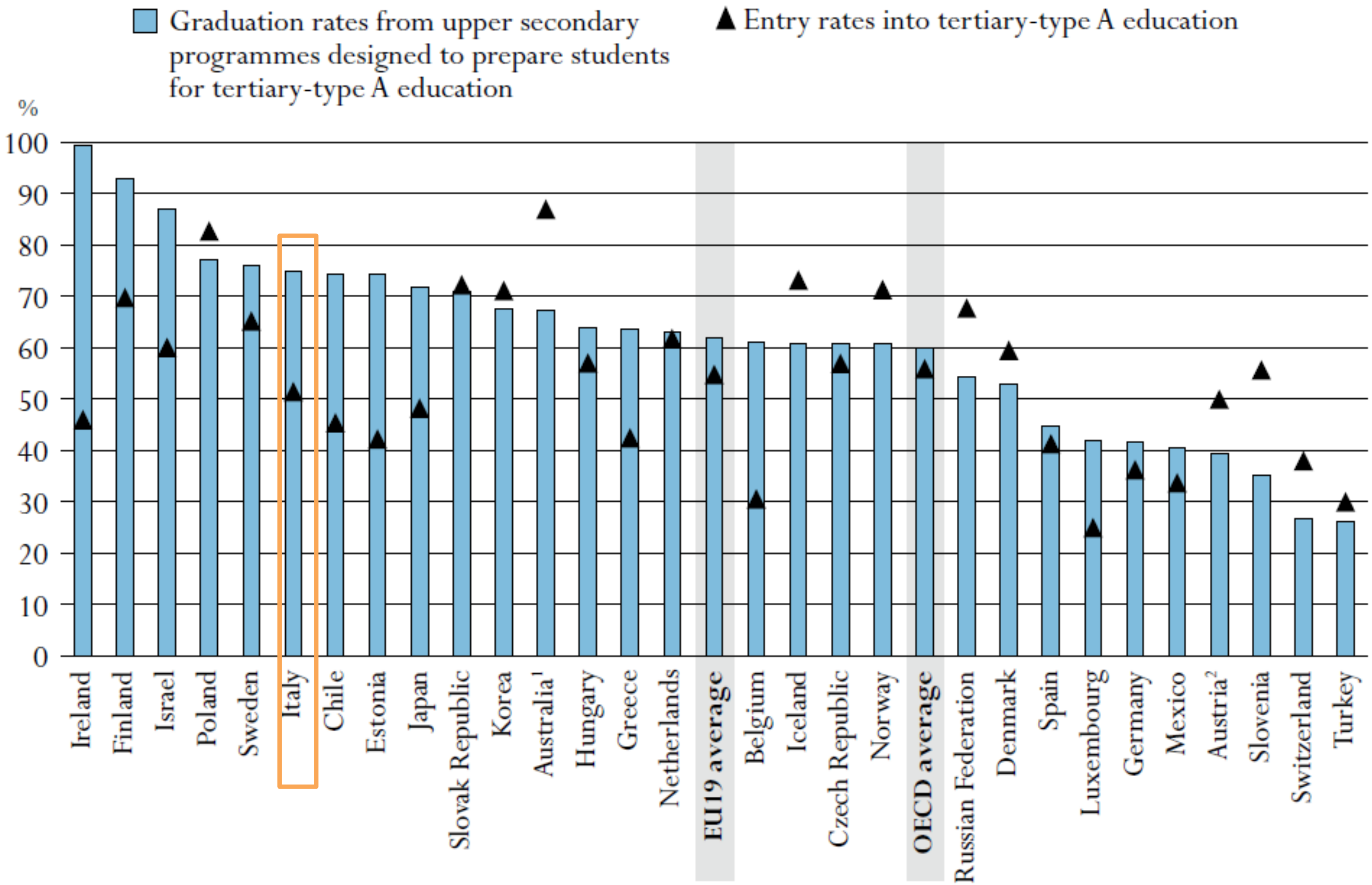
Annual average growth in the 25-64 year-old population between 1998 and 2008

Percentage, by level of education

	Below upper secondary	Upper secondary and post-secondary non-tertiary	Tertiary education	All levels of education
	(1)	(2)	(3)	(4)
Australia	-2.5	2.3	4.7	1.2
Austria	-2.6	0.9	3.3	0.5
Belgium	-2.9	2.3	3.1	0.6
Canada	-3.6	0.7	3.8	1.3
Czech Republic	-3.6	1.3	4.5	1.1
Denmark	0.5	-2.0	3.2	0.3
Finland	-4.5	1.7	2.3	0.3
France	-2.0	1.2	3.6	0.6
Germany	-1.1	-0.2	0.9	-0.5
Greece	-2.3	3.5	4.4	1.0
Hungary	-5.2	2.5	4.5	0.6
Iceland	0.0	1.7	6.4	2.3
Ireland	-2.0	4.4	7.7	3.1
Italy	-1.9	2.5	5.8	0.5
Japan		1.2	3.1	-0.3
Korea	-3.4	1.0	6.4	1.4
Luxembourg[1]	-1.8	2.6	6.5	1.2
Mexico	1.4	4.2	4.0	2.2
Netherlands	-2.6	0.5	3.1	0.3
New Zealand	-2.2	0.5	4.9	1.3
Poland	-4.5	0.7	6.8	0.7
Portugal	-0.3	5.0	6.7	1.1
Slovak Republic	-5.4	1.9	4.9	1.2
Spain	-0.5	8.1	6.9	2.7
Sweden	-4.1	1.5	1.8	0.5
Switzerland	-1.3	-0.6	4.7	0.7
Turkey	1.4	5.1	7.6	2.6
United Kingdom	-2.3	0.7	3.6	0.4
United States	*-0.5*	*0.5*	*3.0*	*1.3*
OECD average	*-2.1*	*1.9*	*4.6*	*1.0*

1. Annual average growth in the 25-64 year-old population between 1999 and 2008.

Chart A2.2. Access to tertiary-type A education for upper secondary graduates (2008)

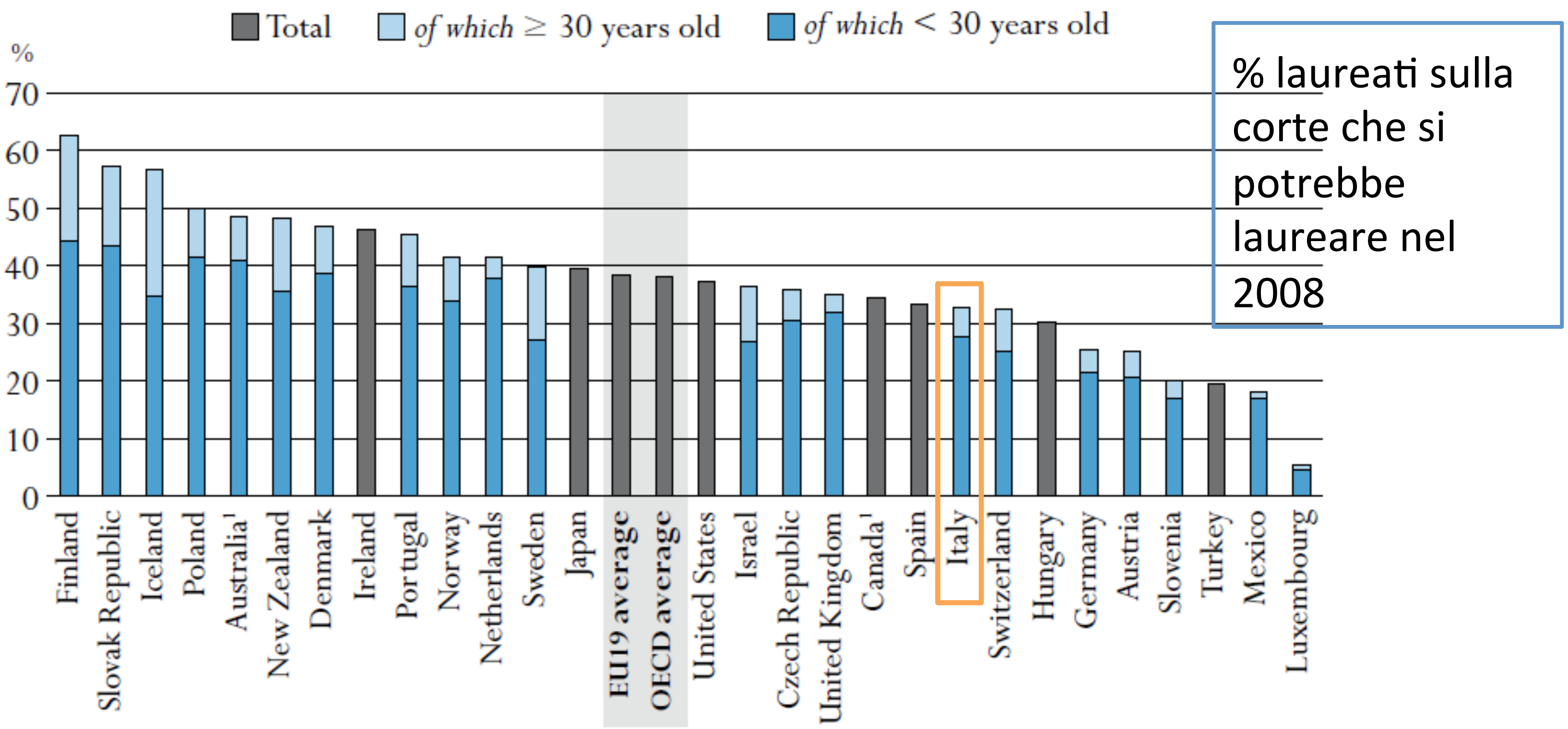


1. Year of reference for graduation rates 2007.
2. Includes ISCED 4A programmes (*Berufsbildende Höhere Schulen*).
Countries are ranked in descending order of graduation rates from upper secondary programmes designed to prepare students for tertiary-type A education in 2008.

Chart A3.1. Tertiary-type A graduation rates in 2008 (first-time graduation)

The chart shows the estimated percentage of a 2008 age cohort that will complete, for the first time, tertiary-type A education (based on current patterns of graduation); it also indicates how many young adults complete tertiary-type A education outside of the typical age of graduation.

Based on current patterns of graduation, on average 38% of an age cohort in 2008 is estimated to complete tertiary-type A education in the 26 OECD countries with comparable data. The proportion of students who complete tertiary-type A education outside the typical age of graduation is high in Finland, Iceland, New Zealand, Sweden and the partner country Israel, where graduation rates for students aged over 30 account for one-quarter or more of the total graduation rate.



1. Year of reference 2007.

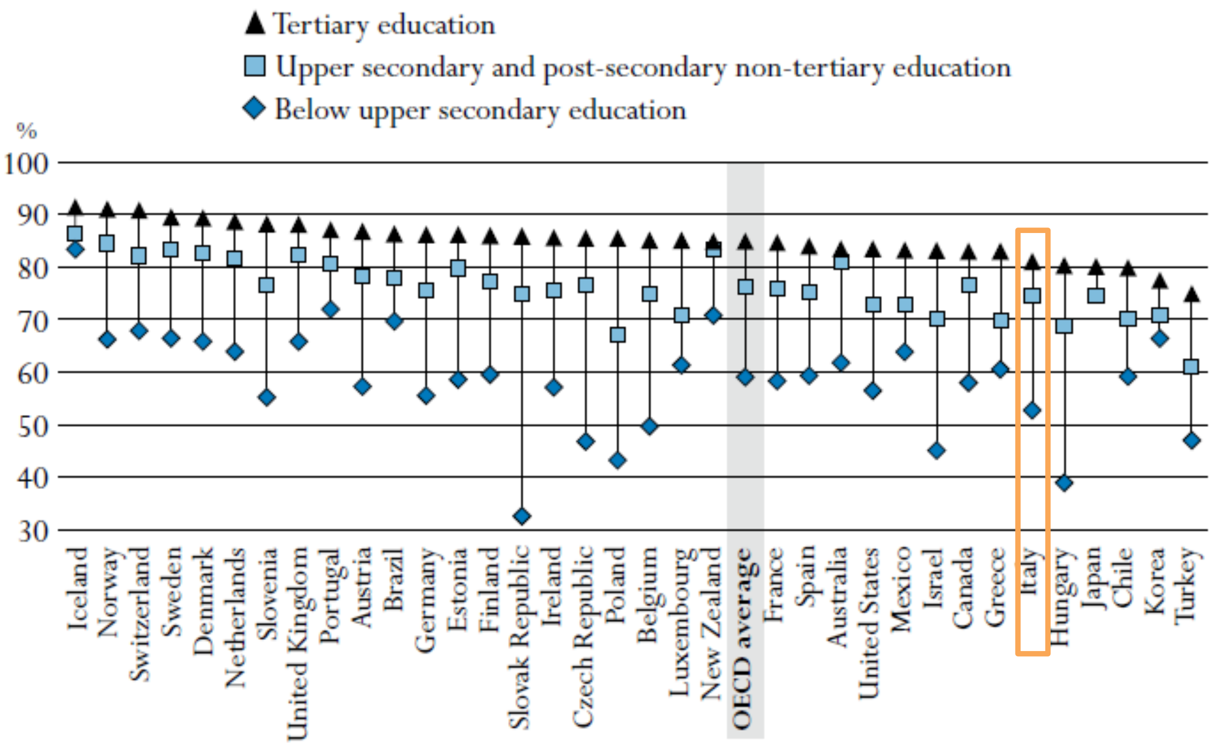
Countries are ranked in descending order of the graduation rates for tertiary-type A education in 2008.

Istruzione e occupazione

Chart A6.1. Positive relation between education and employment (2008)

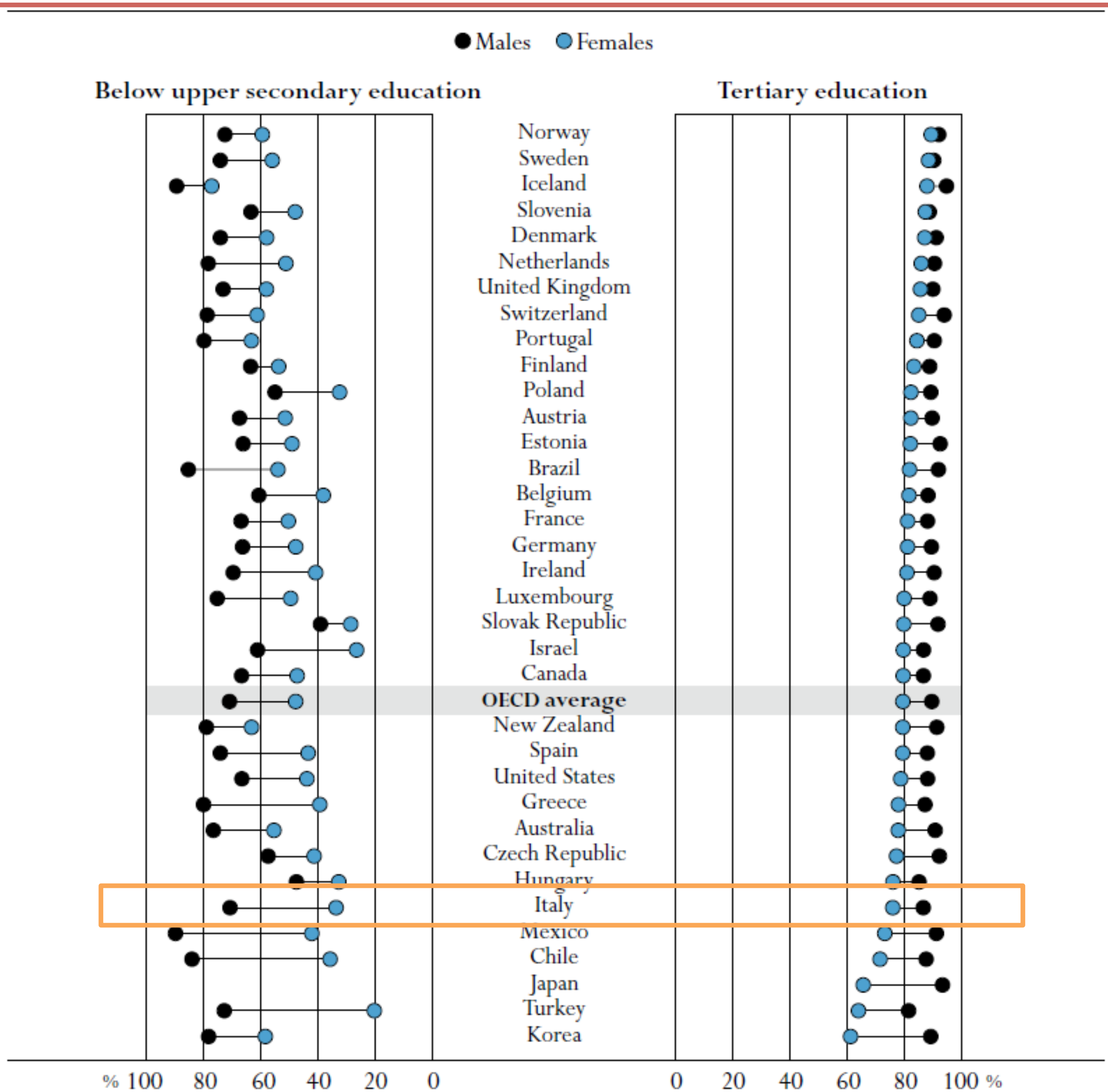
% di occupati nella popolazione 25-64 per livello di istruzione

In all OECD countries, individuals with a tertiary-level degree have a greater chance of being employed than those who lack such a degree. On average, 85% of the population with tertiary education is employed. In Iceland, Norway and Switzerland the share is above 90%. Also in all countries, persons with upper secondary and post-secondary non-tertiary education are much more likely to be employed than those with less education. In Belgium, the Czech Republic, Hungary, Poland, the Slovak Republic and Turkey, and in the partner country Israel, more than half of those with less than upper secondary education are not employed. Overall, employment rates are more than 25 points higher for those with tertiary education than for those who have not completed an upper secondary education. This indicates the magnitude of the economic benefits that flows from additional schooling.



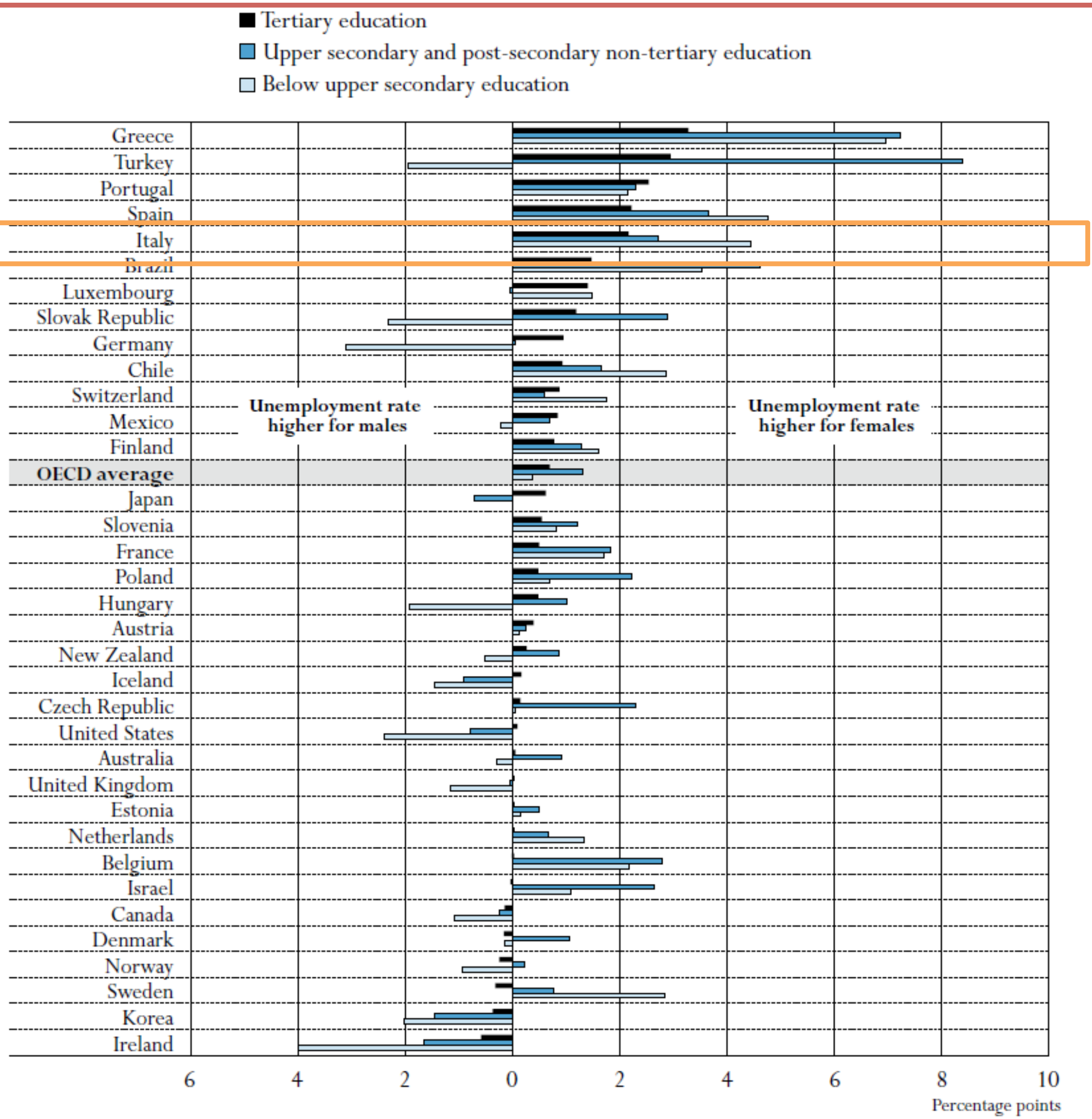
Countries are ranked in descending order of the employment rate of 25-64 year-olds with tertiary education.

Differenza nei tassi di occupazione tra maschi e femmine per livello di istruzione



Countries are ranked in descending order of the employment rate of females with tertiary education.

Differenza nel tasso di disoccupazione tra maschi e femmine per livello di istruzione



Countries are ranked in descending order of the difference in unemployment rates of females and males who have completed tertiary education.

Rendimenti dell’istruzione

I rendimenti dell'istruzione

- Stimare i rendimenti dell'istruzione è molto complicato

- Mincer equation:

$$ln(wi) = b0 + b1Si + b2Ei + b3E2i + Xib + ai + ei$$

- Il problema è che l'abilità *ai* non è osservabile (ovvero non è inclusa nei dataset)

Quindi viene omessa

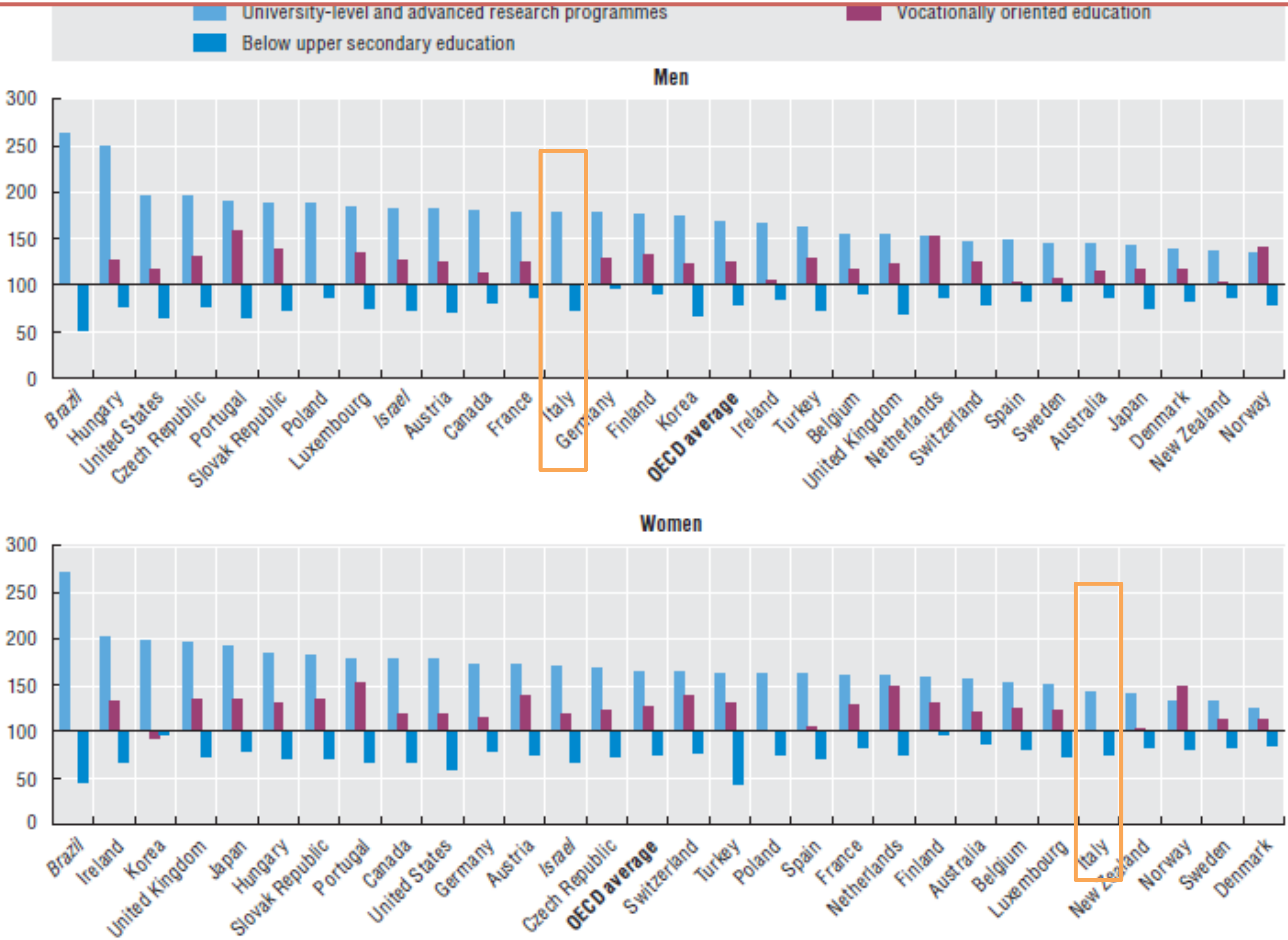
I rendimenti dell'istruzione

- centinaia di studi hanno stimato la Mincer equation cercado metodi che risolvano il problema della variabile omessa

- Tipicamente il risultato è che ogni anno di istruzione in più aumenta i salari del 5-7%
  - le stime variano per paese
  - l'Italia è in linea

Figure 2.2. **Relative earnings from employment, 2008**

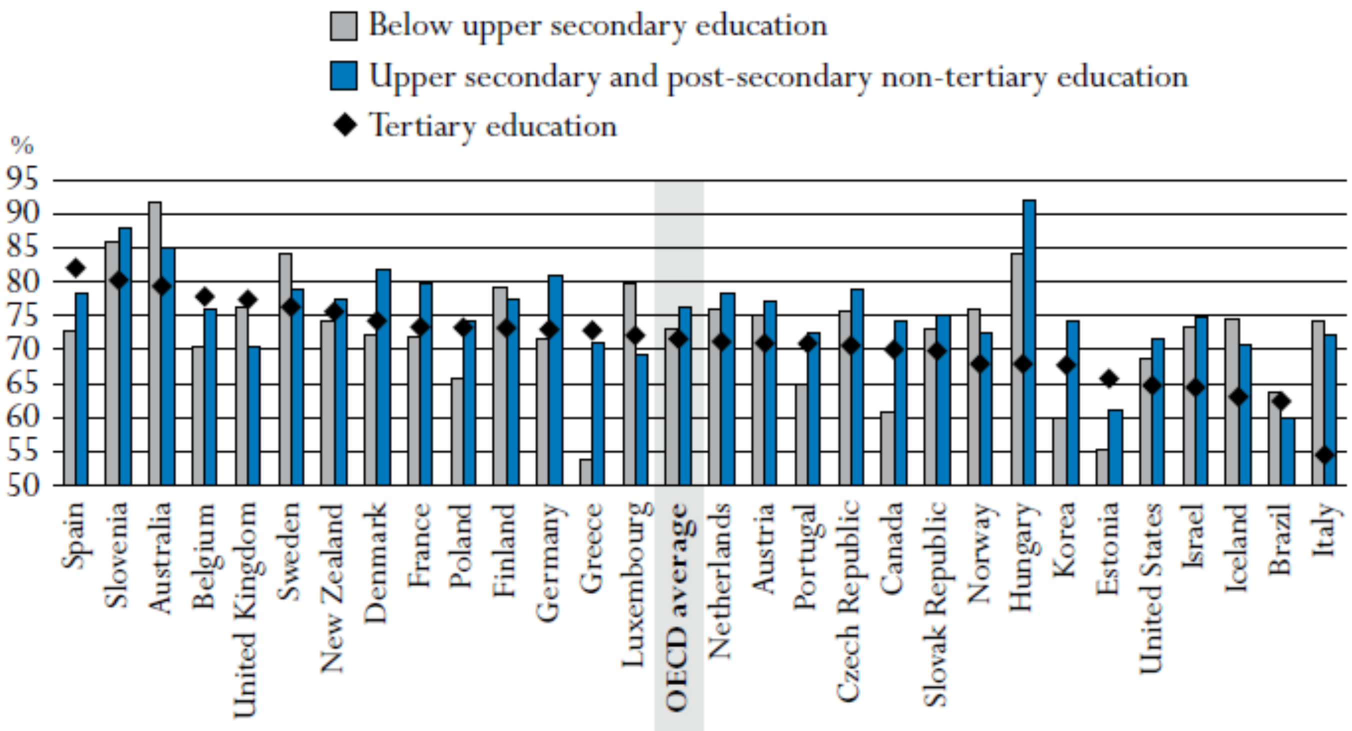
Guadagni relativi dei laureati rispetto ai diplomati



Guadagni delle donne come % dei guadagni degli uomini per livello di istruzione

Average earnings of females as a percentage of those of males (25-64 year-olds), by level of educational attainment

Across all countries and educational levels, females earn considerably less than males. The gender gap in earnings is not reduced with more education. The share of female earnings to male earnings is largest among those with upper secondary and post-secondary non-tertiary education (76%) and smallest among those with tertiary education (72%). Only in seven countries are earnings of tertiary-educated females more than 75% of male earnings, and among these, the gender gap for the tertiary educated is smaller than for females with upper secondary education only in Belgium, Spain and the United Kingdom. Females are often employed in different professional careers than males. Nevertheless, in Iceland, Italy, the United States and the partner countries Brazil and Israel, females who have obtained a tertiary degree earn 65% or less of male earnings, and in all cases except Brazil, the gap in earnings is larger than that of females with less education.



Differenza nel *college wage premium* tra i 55-64 rispetto al *college wage premium* medio

Evidenza di obsolescenza del capitale umano in Italia (forse a causa dello scarso training)

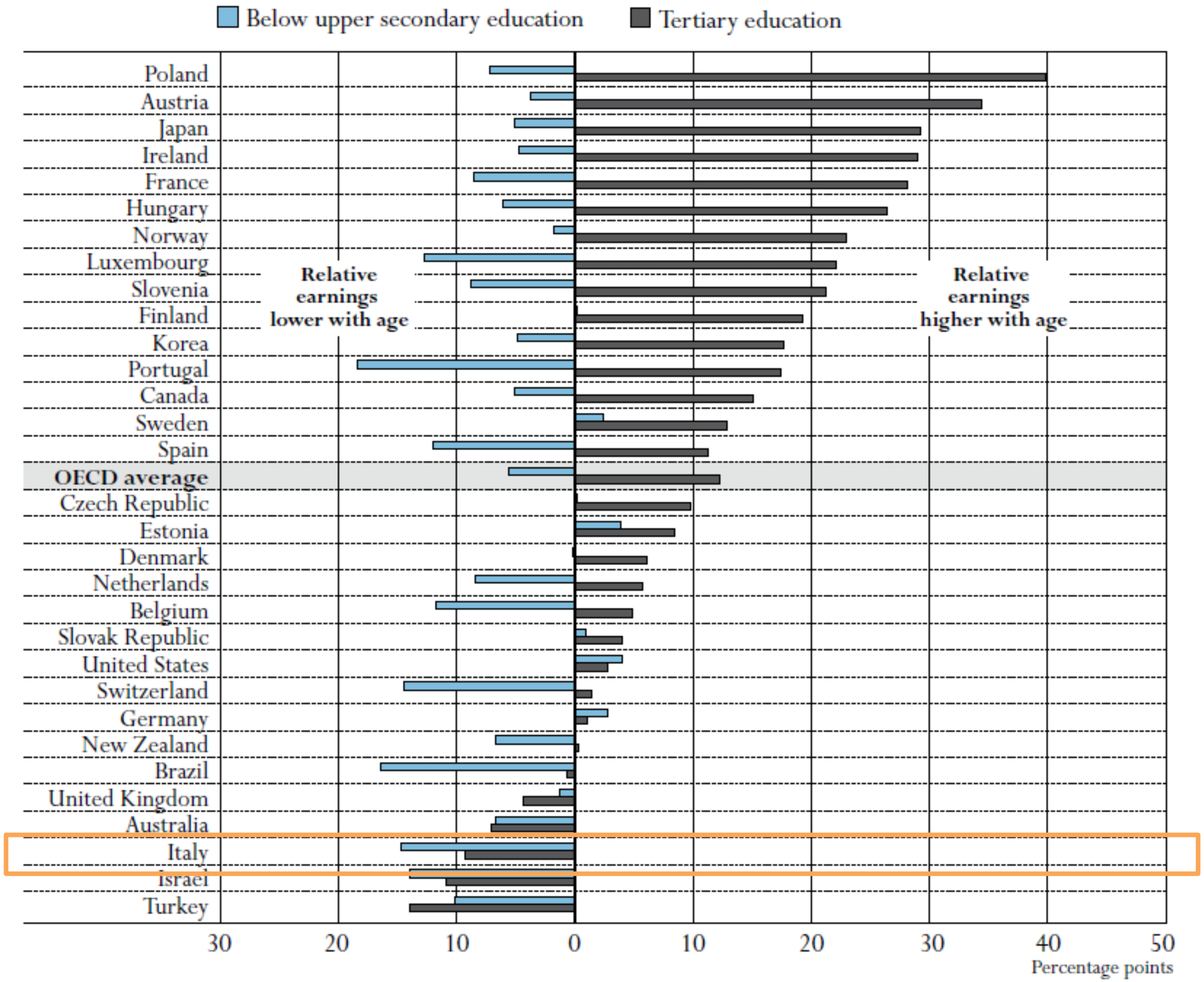


Table A7.3a.

Guadagni delle donne in rapporto agli uomini per livello di istruzione e età

			Below upper secondary education			Upper secondary and post-secondary non-tertiary education			Tertiary education			All levels of education		
			25-64	35-44	55-64	25-64	35-44	55-64	25-64	35-44	55-64	25-64	35-44	55-64
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD countries	Australia	2005	92	88	99	85	87	77	79	80	76	87	88	84
	Austria	2008	75	71	69	77	76	84	71	73	67	75	73	75
	Belgium	2006	70	73	67	76	74	83	78	82	74	82	83	76
	Canada	2007	61	68	63	74	70	73	70	76	59	73	75	63
	Czech Republic	2008	76	72	81	79	73	85	71	67	78	73	66	75
	Denmark	2006	72	68	57	82	83	87	74	72	76	80	78	78
	Finland	2007	79	78	77	77	76	77	73	72	72	78	77	74
	France	2006	72	76	63	80	78	82	73	81	55	79	84	65
	Germany	2008	72	69	70	81	86	66	73	76	68	76	79	67
	Greece	2006	54	61	45	71	78	67	73	68	89	74	77	60
	Hungary	2008	84	83	86	92	86	105	68	57	75	85	79	86
	Iceland	2006	75	67	90	71	67	69	63	58	70	73	68	74
	Italy	2006	74	71	83	72	81	84	54	52	45	74	77	76
	Korea	2007	60	66	67	74	58	74	68	84	58	61	59	57
	Luxembourg	2006	80	85	55	69	76	78	72	73	78	78	79	71
	Netherlands	2006	76	76	77	78	83	74	71	79	65	79	85	74
	New Zealand	2008	74	78	67	77	76	73	76	74	76	78	77	74
	Norway	2007	76	74	78	72	72	74	68	68	69	74	74	73
	Poland	2006	66	65	62	74	67	91	73	66	73	81	77	83
	Portugal	2006	65	66	58	73	75	74	71	70	72	79	77	65
	Slovak Republic	2008	73	71	74	75	72	83	70	61	79	73	68	80
	Spain	2007	73	72	74	78	85	86	82	82	75	84	86	79
	Sweden	2006	84	94	82	79	77	80	76	72	77	81	78	83
	United Kingdom	2008	76	82	78	70	69	72	77	77	78	78	76	77
	United States	2008	69	67	65	71	69	75	65	68	62	70	71	65
	OECD average		*73*	*74*	*72*	*76*	*76*	*79*	*72*	*71*	*71*	*77*	*77*	*73*
Partner countries	Brazil	2008	64	63	62	60	56	57	62	67	56	76	75	71
	Estonia	2008	55	63	66	61	61	72	66	64	74	67	68	76
	Israel	2008	73	69	71	75	74	70	64	64	67	72	70	70
	Slovenia	2006	86	85	85	88	87	97	80	81	99	92	92	104

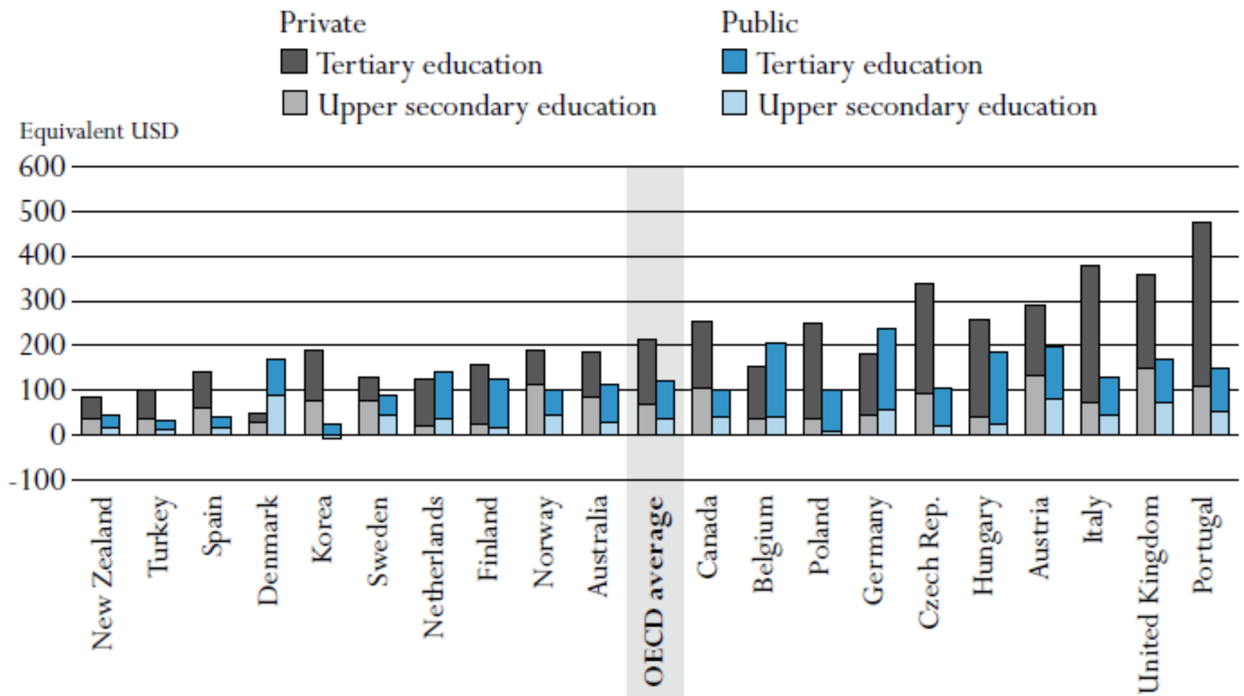
Valore attuale netto pubblico e privato dell’investimento in istruzione

Valore attuale netto privato e pubblico del diploma e della laurea

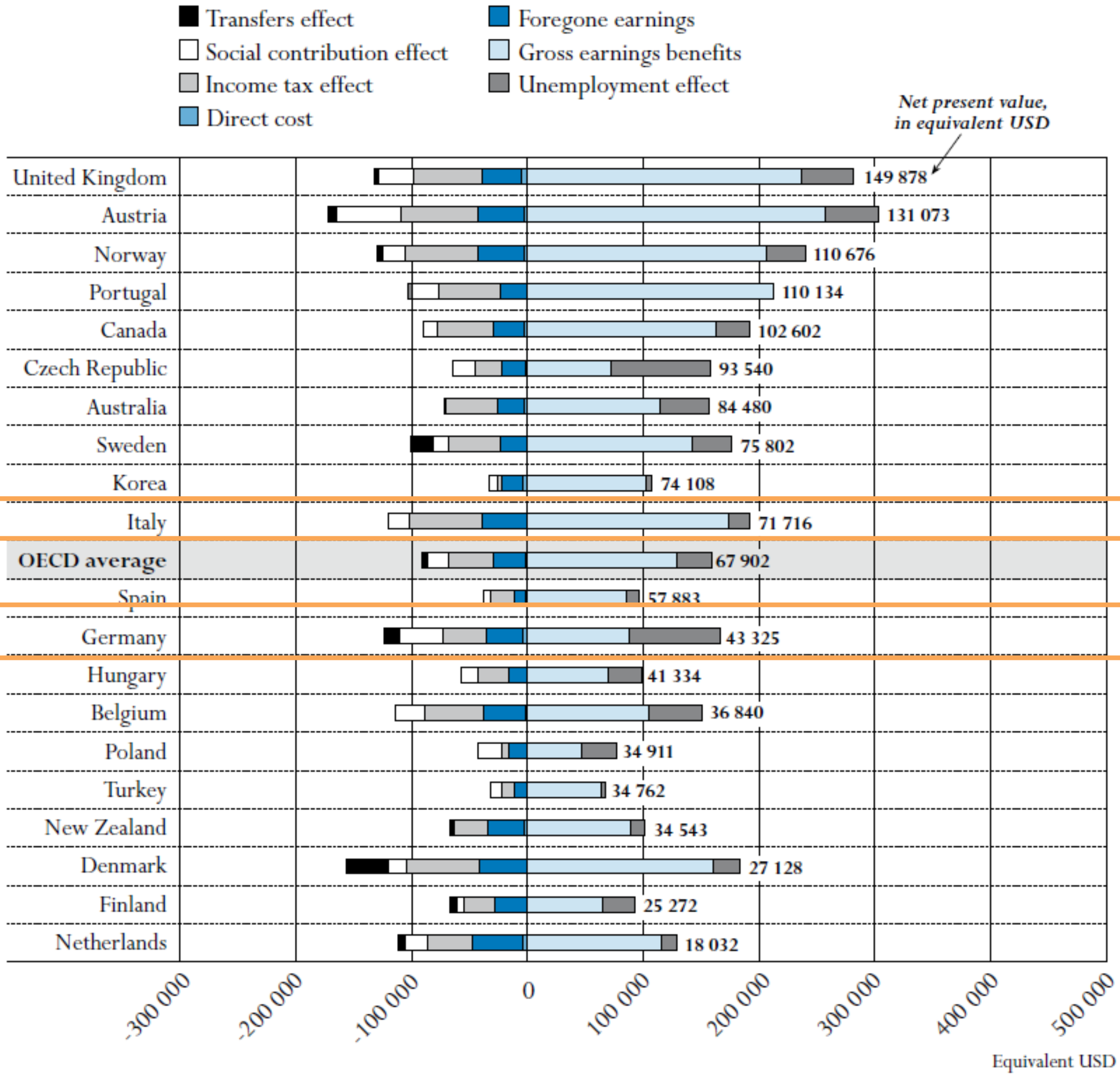
as part of initial education (2006)

This chart depicts the present value of an investment's future cash flows net of the initial investment, discounted at a 3% real interest rate.

Investments in education generate substantial financial rewards in all OECD countries. Additional education beyond compulsory schooling produces large returns from both an individual's and a public perspective. The total return (private and public) for a male completing upper secondary education and successfully completing a tertiary degree exceeds USD 500 000 in Italy, Portugal and the United Kingdom. On average across OECD countries, the total return exceeds USD 335 000. The rewards to individuals for tertiary education are on average substantially higher (USD 145 000) than for upper secondary education (USD 68 000). This reflects the fact that an upper secondary education has become the norm in OECD countries. In some countries, individuals need to obtain tertiary education to reap the full financial rewards of education beyond compulsory schooling.

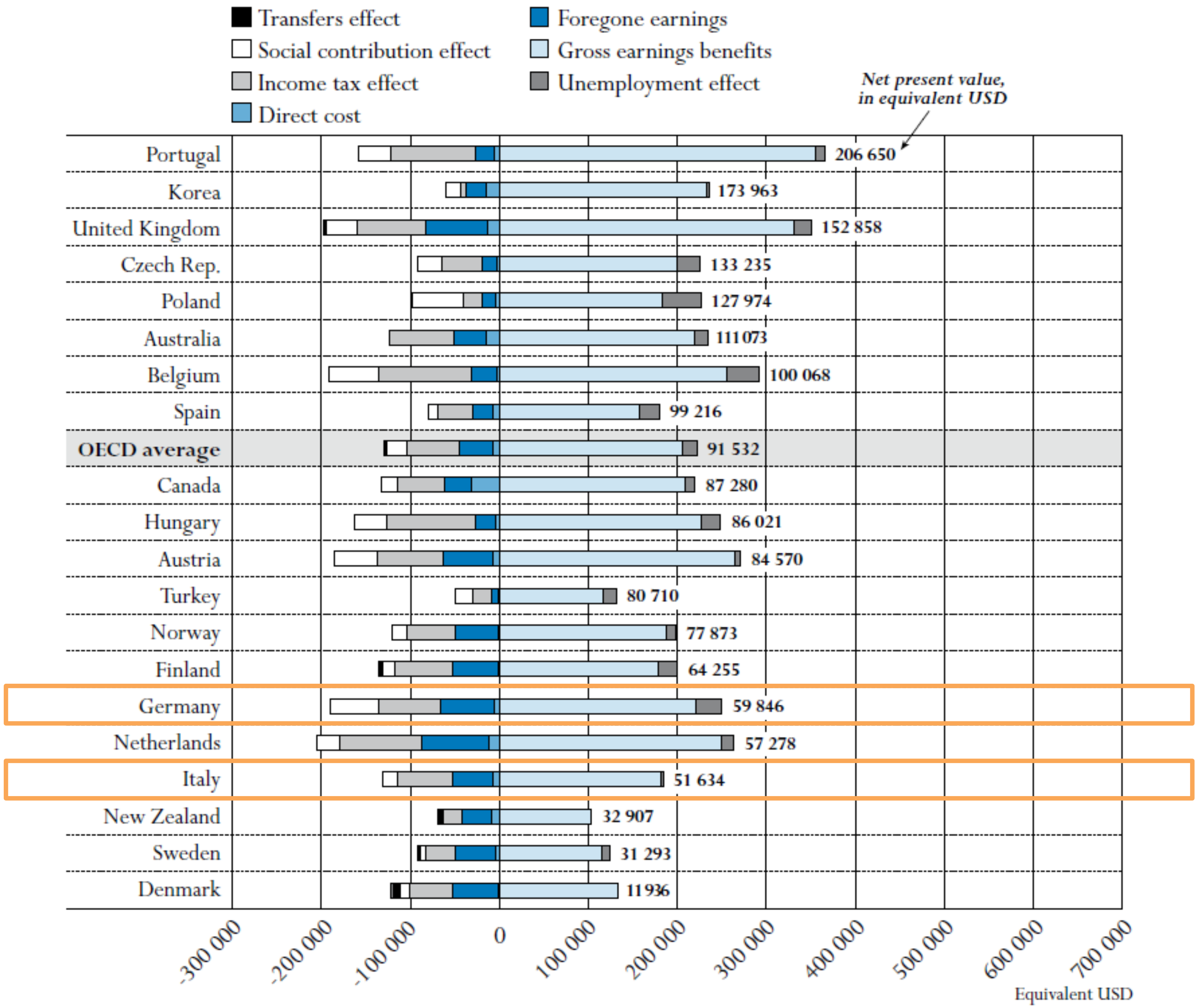


Componenti del valore attuale netto del diploma superiore



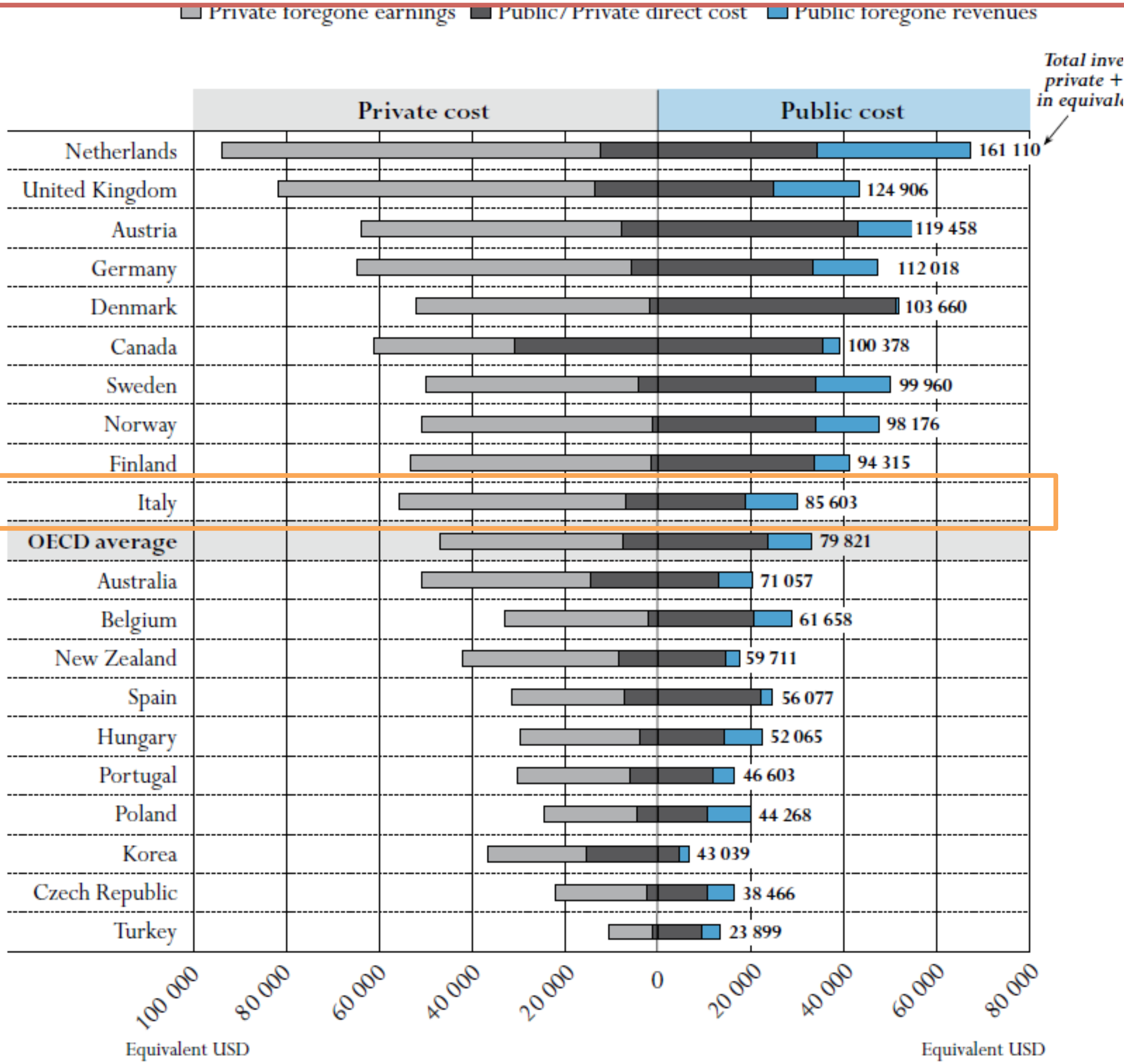
Note: Korea refers to 2003, Spain to 2004, Australia, Belgium and Turkey to 2005. All other countries refer to 2006.
Cash flows (components) are discounted at a 3% interest rate.
Countries are ranked in descending order of the net present value.

Componenti del valore attuale netto della laurea



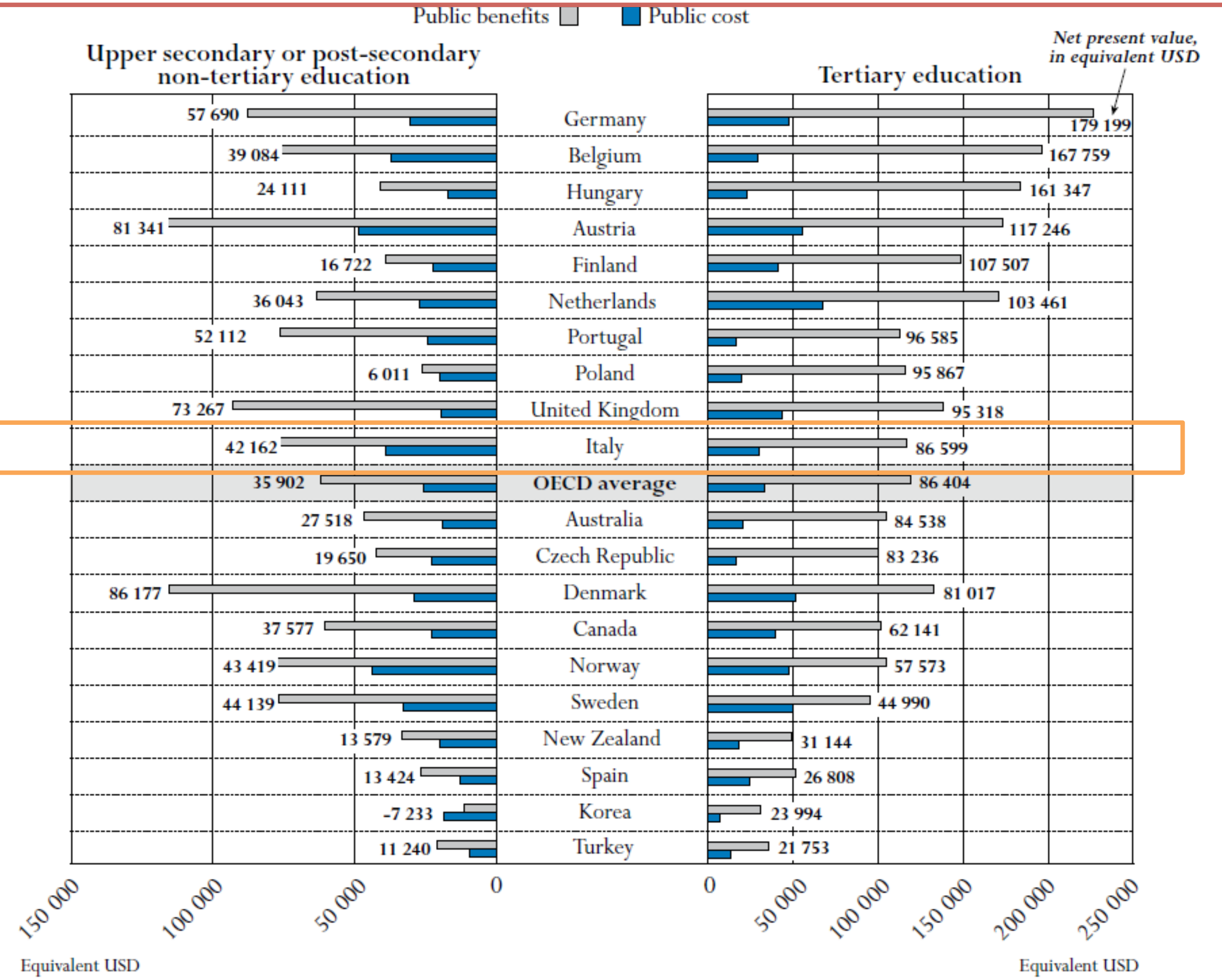
Note: Korea refers to 2003, Spain to 2004, Australia, Belgium and Turkey to 2005. All other countries refer to 2006.
Cash flows (components) are discounted at a 3% interest rate.
Countries are ranked in descending order of the net present value.

Costi pubblici e costi privati della laurea



Note: Korea refers to 2003, Spain to 2004, Australia, Belgium and Turkey to 2005. All other countries refer to 2006. Cash flows (components) are discounted at a 3% interest rate.
Countries are ranked in descending order of the total cost private + public.

Rendimenti e costi pubblici dell'istruzione



Note: Korea refers to 2003, Ireland and Spain to 2004, Australia, Belgium and Turkey to 2005. All other countries refer to 2006.
Cash flows (components) are discounted at a 3% interest rate.
Countries are ranked in descending order of the public net present value obtaining tertiary education.

Investments in education also generate public returns as a consequence of higher income levels, in the form of income taxes, increased social insurance payments and lower social transfers. Chart A8.5 compares the costs and economic benefits from the public point of view for a male investing in upper secondary or post-secondary non-tertiary education and in tertiary education.

Table A8.1.

Private net present value for an individual obtaining upper secondary or post-secondary non-tertiary education as part of initial education, ISCED 3/4 (2006)

In equivalent USD, converted using PPPs for GDP

OECD countries	Year[1]	Direct cost		Foregone earnings		Total costs		Gross earnings benefits		Income tax effect	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Australia	-1	-2 891	-2 891	-22 661	-23 380	**-25 553**	**-26 271**	114 598	94 207	-45 267	-29 950
Austria		-2 360	-2 360	-40 556	-39 016	**-42 916**	**-41 376**	257 094	178 802	-66 653	-26 662
Belgium	-1	-1 511	-1 511	-36 691	-31 509	**-38 202**	**-33 020**	105 141	148 948	-50 243	-52 366
Canada		-2 478	-2 478	-26 369	-27 034	**-28 847**	**-29 513**	163 243	143 258	-48 388	-31 623
Czech Republic		-1 787	-1 787	-20 260	-16 230	**-22 048**	**-18 018**	71 667	78 630	-22 673	-19 376
Denmark		-614	-614	-40 502	-40 540	**-41 116**	**-41 154**	160 072	122 514	-63 354	-34 926
Finland		-186	-186	-27 797	-27 110	**-27 983**	**-27 296**	65 403	41 334	-26 788	-15 507
France		w	w	w	w	**w**	**w**	w	w	w	w
Germany		-3 380	-3 380	-32 250	-32 528	**-35 629**	**-35 908**	87 966	86 107	-37 839	-28 130
Hungary		-747	-747	-15 371	-15 592	**-16 118**	**-16 339**	69 431	67 379	-26 973	-23 838
Italy		-884	-884	-37 895	-33 025	**-38 780**	**-33 909**	173 901	137 400	-63 557	-44 841
Korea	-3	-4 358	-4 358	-18 057	-18 182	**-22 416**	**-22 540**	101 951	4 509	-3 697	520
Netherlands		-3 666	-3 666	-44 221	-42 220	**-47 887**	**-45 886**	115 846	121 122	-38 453	-17 599
New Zealand		-2 598	-2 598	-31 184	-29 980	**-33 782**	**-32 578**	89 623	60 909	-30 434	-14 768
Norway		-2 558	-2 558	-39 671	-39 689	**-42 229**	**-42 246**	206 700	128 213	-63 479	-34 640
Poland		-177	-177	-16 120	-13 249	**-16 297**	**-13 425**	46 353	62 432	-6 124	-7 066
Portugal		-12	-12	-23 219	-20 192	**-23 230**	**-20 203**	212 846	150 215	-53 100	-30 589
Spain	-2	-966	-966	-10 675	-9 157	**-11 642**	**-10 123**	85 624	75 375	-20 229	-15 627
Sweden		-21	-21	-23 725	-23 781	**-23 746**	**-23 802**	142 848	105 423	-44 888	-33 014
Turkey	-1	-336	-336	-11 256	-12 205	**-11 592**	**-12 541**	63 320	75 879	-10 527	-8 168
United Kingdom		-4 773	-4 773	-34 122	-35 464	**-38 894**	**-40 237**	236 620	211 147	-59 240	-50 897
United States		w	w	w	w	**w**	**w**	w	w	w	w
OECD average		*-1 815*	*-1 815*	*-27 630*	*-26 504*	*-29 445*	*-28 319*	*128 512*	*104 690*	*-39 095*	*-25 953*

cont.

OECD countries	Year[1]	Social contribution effect		Transfers effect		Unemployment effect		Total net benefits		Net present value		Internal rate of return	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
		(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Australia	-1	0	0	-1 364	-17 689	42 065	23 289	**110 032**	**69 857**	**84 480**	**43 586**	**14.4**	**11.9**
Austria		-54 652	-37 211	-8 397	-19 751	46 596	23 156	**173 988**	**118 335**	**131 073**	**76 959**	**12.6**	**9.2**
Belgium	-1	-25 741	-41 993	0	0	45 885	46 051	**75 042**	**100 641**	**36 840**	**67 621**	**6.6**	**10.8**
Canada		-12 100	-14 727	0	-1 672	28 695	24 625	**131 449**	**119 861**	**102 602**	**90 348**	**13.1**	**12.7**
Czech Republic		-19 679	-18 390	0	0	86 273	68 363	**115 588**	**109 226**	**93 540**	**91 209**	**17.6**	**20.2**
Denmark		-15 480	-11 851	-36 387	-45 893	23 393	15 785	**68 243**	**45 629**	**27 128**	**4 475**	**5.8**	**3.4**
Finland		-6 326	-5 074	-6 032	-14 195	26 998	32 448	**53 255**	**39 007**	**25 272**	**11 711**	**7.4**	**5.4**
France		w	w	w	w	w	w	**w**	**w**	**w**	**w**	**w**	**w**
Germany		-36 486	-29 288	-13 532	-12 609	78 846	48 169	**78 955**	**64 249**	**43 325**	**28 342**	**7.8**	**6.5**
Hungary		-14 101	-13 654	0	0	29 095	28 113	**57 452**	**58 000**	**41 334**	**41 661**	**13.4**	**11.9**
Italy		-17 786	-15 224	0	0	17 938	28 616	**110 496**	**105 951**	**71 716**	**72 042**	**7.2**	**8.5**
Korea	-3	-7 426	-499	0	-3 912	5 696	2 653	**96 524**	**3 271**	**74 108**	**-19 269**	**11.1**	**0.9**
Netherlands		-18 703	-46 965	-5 949	-12 382	13 179	24 165	**65 919**	**68 340**	**18 032**	**22 454**	**4.4**	**4.8**
New Zealand		-1 224	-858	-1 655	-12 984	12 015	10 325	**68 325**	**42 624**	**34 543**	**10 046**	**6.6**	**4.8**
Norway		-18 695	-11 294	-4 876	-14 435	33 255	16 917	**152 905**	**84 762**	**110 676**	**42 515**	**12.8**	**7.1**
Poland		-19 927	-22 813	0	0	30 906	26 653	**51 208**	**59 205**	**34 911**	**45 780**	**10.6**	**11.9**
Portugal		-23 029	-17 666	0	0	-3 353	10 416	**133 364**	**112 376**	**110 134**	**92 173**	**11.6**	**12.0**
Spain	-2	-6 095	-5 860	0	0	10 225	17 378	**69 525**	**71 265**	**57 883**	**61 142**	**11.7**	**14.6**
Sweden		-12 329	-9 636	-19 654	-24 984	33 571	33 456	**99 548**	**71 244**	**75 802**	**47 442**	**14 3**	**10.2**
Turkey	-1	-10 055	-9 177	0	0	3 617	-14 154	**46 354**	**44 381**	**34 762**	**31 839**	**9.4**	**8.9**
United Kingdom		-29 889	-25 686	-3 697	-46 808	44 978	31 680	**188 773**	**119 436**	**149 878**	**79 200**	**13.4**	**10.5**
United States		w	w	w	w	w	w	**w**	**w**	**w**	**w**	**w**	**w**
OECD average		*-17 486*	*-16 893*	*-5 077*	*-11 366*	*30 494*	*24 905*	*97 347*	*75 383*	*67 902*	*47 064*	*10.6*	*9.3*

Note: Cash flows (components) are discounted at a 3% interest rate.
Assuming that foregone earnings for all individual refer to the minimum wage, except those countries reporting full time earnings, *i.e.* the Czech Republic, Hungary, Poland and Portugal.
1. Latest available year compared to 2006. -1 refers to year 2005, -2 refers to 2004 and -3 refers to 2003.

Table A8.2.

Private net present value for an individual obtaining tertiary education as part of initial education, ISCED 5/6 (2006)

In equivalent USD, converted using PPPs for GDP

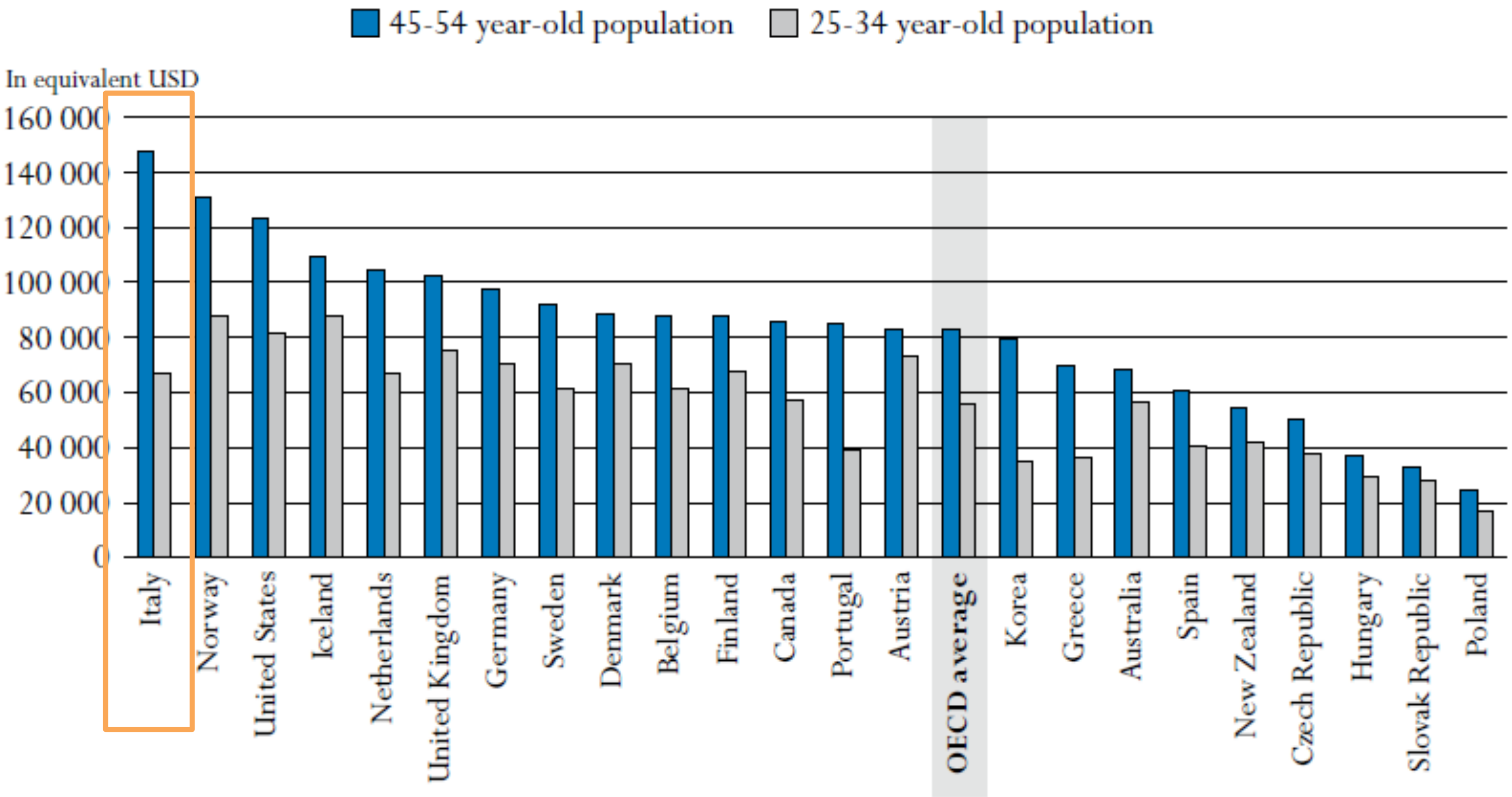
OECD countries	Year[1]	Direct cost		Foregone earnings		Total costs		Gross earnings benefits		Income tax effect	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Australia	-1	-14 426	-14 426	-36 420	-36 370	**-50 846**	**-50 796**	255 043	219 590	-104 749	-72 697
Austria		-7 879	-7 879	-56 009	-56 053	**-63 888**	**-63 932**	380 956	264 161	-125 695	-73 537
Belgium	-1	-2 133	-2 133	-30 842	-29 666	**-32 975**	**-31 799**	330 068	255 955	-146 283	-103 529
Canada		-30 820	-30 820	-30 327	-31 009	**-61 147**	**-61 829**	295 609	208 439	-94 636	-53 516
Czech Republic		-2 317	-2 317	-19 785	-17 356	**-22 102**	**-19 673**	349 444	200 077	-65 309	-44 720
Denmark		-1 887	-1 887	-50 254	-50 987	**-52 141**	**-52 874**	212 423	133 560	-111 634	-48 690
Finland		-1 603	-1 603	-51 547	-51 568	**-53 150**	**-53 171**	304 543	178 561	-125 734	-64 291
France		w	w	w	w	**w**	**w**	w	w	w	w
Germany		-5 852	-5 852	-59 004	-60 677	**-64 856**	**-66 529**	366 445	220 156	-150 124	-69 334
Hungary		-4 034	-4 034	-25 719	-22 910	**-29 753**	**-26 943**	410 323	227 320	-134 380	-99 975
Italy		-6 977	-6 977	-48 756	-45 725	**-55 733**	**-52 701**	485 212	181 641	-92 371	-62 065
Korea	-3	-15 329	-15 329	-21 144	-21 731	**-36 472**	**-37 060**	176 206	233 259	-18 025	-6 734
Netherlands		-12 351	-12 351	-81 366	-75 816	**-93 717**	**-88 167**	360 262	249 090	-157 021	-91 090
New Zealand		-8 509	-8 509	-33 486	-33 351	**-41 994**	**-41 860**	143 270	102 836	-46 971	-22 364
Norway		-1 043	-1 043	-49 699	-49 192	**-50 742**	**-50 235**	235 888	188 187	-86 646	-54 292
Poland		-4 547	-4 547	-19 838	-15 268	**-24 385**	**-19 816**	308 019	182 336	-35 830	-20 299
Portugal		-5 903	-5 903	-24 213	-20 594	**-30 116**	**-26 497**	484 638	355 877	-82 694	-95 240
Spain	-2	-7 086	-7 086	-24 323	-22 996	**-31 409**	**-30 082**	157 114	157 091	-41 161	-38 585
Sweden		-4 149	-4 149	-45 679	-45 346	**-49 829**	**-49 495**	193 165	115 319	-88 264	-33 816
Turkey	-1	-1 061	-1 061	-9 441	-8 217	**-10 502**	**-9 278**	106 984	116 531	-18 705	-21 327
United Kingdom		-13 536	-13 536	-68 162	-69 881	**-81 698**	**-83 418**	410 275	331 462	-114 054	-76 150
United States		w	w	w	w	**w**	**w**	w	w	w	w
OECD average		*-7 572*	*-7 572*	*-39 301*	*-38 236*	*-46 873*	*-45 808*	*298 294*	*206 072*	*-92 014*	*-57 613*

OECD countries	Year[1]	Social contribution effect		Transfers effect		Unemployment effect		Total net benefits		Net present value		Internal rate of return	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
		(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Australia	-1	0	0	0	0	1 067	14 976	151 361	161 869	100 515	111 073	9.1	11.3
Austria		-47 120	-48 803	0	0	13 821	6 681	221 962	148 502	158 074	84 570	9.1	7.4
Belgium	-1	-50 159	-56 931	0	0	14 294	36 372	147 919	131 867	114 944	100 068	11.7	14.1
Canada		-6 736	-16 998	0	0	16 283	11 184	210 520	149 109	149 373	87 280	9.6	8.8
Czech Republic		-34 291	-28 291	0	0	16 375	25 841	266 219	152 908	244 117	133 235	22.5	19.6
Denmark		-16 201	-10 647	-4 702	-9 014	-6 880	-399	73 008	64 810	20 867	11 936	4.4	4.0
Finland		-22 938	-13 804	0	-4 733	27 492	21 693	183 363	117 426	130 213	64 255	10.0	7.5
France		w	w	w	w	w	w	w	w	w	w	w	w
Germany		-76 237	-53 954	0	0	61 335	29 508	201 418	126 375	136 563	59 846	9.0	6.5
Hungary		-49 280	-35 578	0	0	20 934	21 197	247 598	112 964	217 845	86 021	17.7	12.8
Italy		-24 098	-16 963	0	0	-4 712	1 722	364 031	104 335	308 299	51 634	11.5	6.6
Korea	-3	-12 536	-16 175	0	0	4 778	672	150 423	211 022	113 951	173 963	9.4	12.9
Netherlands		-13 833	-26 675	0	0	8 808	14 120	198 216	145 445	104 499	57 278	6.6	5.6
New Zealand		-1 696	-1 217	-194	-3 416	-1 872	-1 073	92 538	74 767	50 544	32 907	7.2	6.5
Norway		-18 361	-15 448	0	0	-559	9 661	130 322	128 108	79 580	77 873	6.6	8.3
Poland		-79 920	-58 532	0	0	45 499	44 285	237 767	147 790	213 382	127 974	20.4	19.2
Portugal		-30 377	-37 339	0	0	25 278	9 848	396 844	233 148	366 728	206 650	18.4	18.4
Spain	-2	-10 315	-11 404	0	0	9 156	22 195	114 794	129 298	83 385	99 216	9.3	11.6
Sweden		-6 857	-8 645	0	-64	4 196	7 995	102 239	80 788	52 411	31 293	6.1	5.3
Turkey	-1	-16 446	-19 686	0	0	2 906	14 471	74 740	89 988	64 238	80 710	19.1	19.1
United Kingdom		-24 472	-37 753	0	-339	17 604	19 056	289 353	236 276	207 655	152 858	11.2	8.5
United States		w	w	w	w	w	w	w	w	w	w	w	w
OECD average		*-27 094*	*-25 742*	*-245*	*-878*	*13 790*	*15 500*	*192 732*	*137 340*	*145 859*	*91 532*	*11.5*	*10.7*

Note: Cash flows (components) are discounted at a 3% interest rate.
Assuming that foregone earnings for all individual refer to the minimum wage, except those countries reporting full time earnings, *i.e.* the Czech Republic, Hungary, Poland and Portugal.
1. Latest available year compared to 2006. -1 refers to year 2005, -2 refers to 2004 and -3 refers to 2003.

Il costo del lavoro per le imprese di un laureato con e senza esperienza

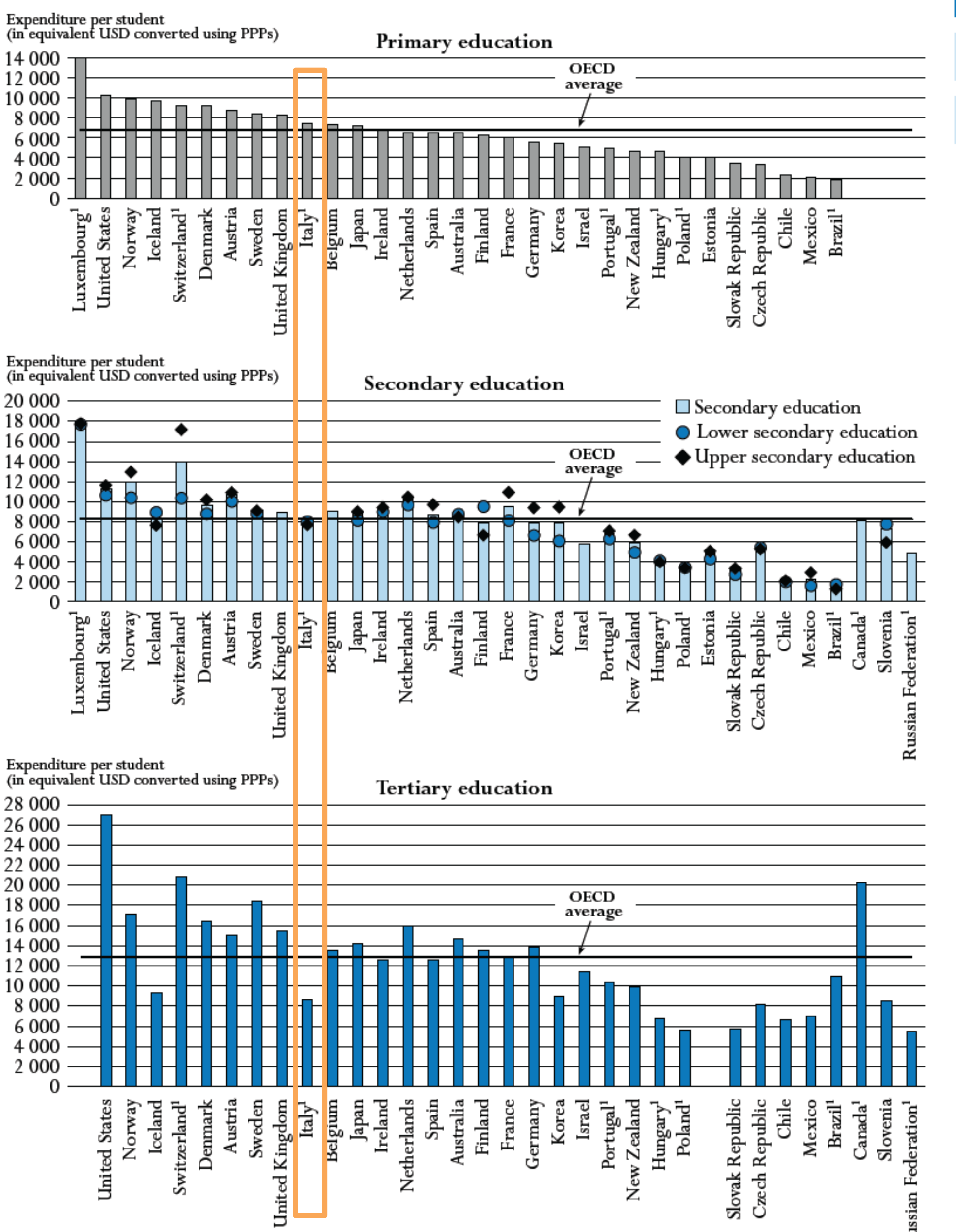
Annual labour costs in equivalent USD of employing a recent tertiary graduate (25-34 year-olds) and a graduate with 20-30 years of work experience (45-54 year-olds) across OECD countries



Note: Australia refers to 2005. Austria, Belgium, Denmark, Greece, Iceland, Italy, the Netherlands, Poland, Portugal and Sweden refer to 2006. Canada, Finland, Korea, Spain refer to 2007. The other countries refer to 2008.
Countries are ranked in descending order of annual labour costs employing an experienced tertiary graduate.

La spesa pubblica in istruzione

La spesa annuale per studente

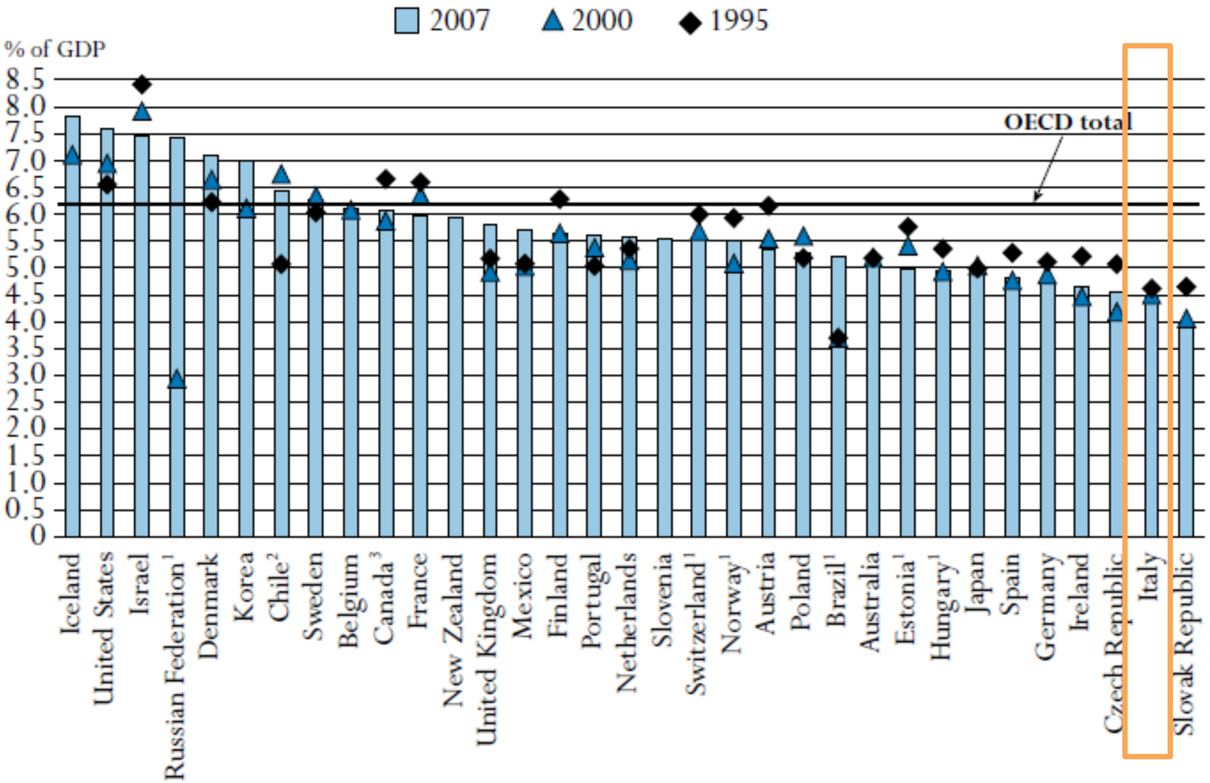


1. Public institutions only (for Canada, in tertiary education only; for Italy, except in tertiary education).
Countries are ranked in descending order of expenditure by educational institutions per student in primary education.

Spesa per istruzione sul PIL

This chart shows educational investment as the proportion of national income that countries devoted to spending on educational institutions in 1995, 2000 and 2007. It includes direct and indirect expenditure on educational institutions from both public and private sources of funds.

OECD countries spend 6.2% of their collective GDP on educational institutions. The increase in spending on educational institutions between 1995 and 2007 did not keep up with growth in national income in more than half of the 27 OECD and partner countries for which data are available.



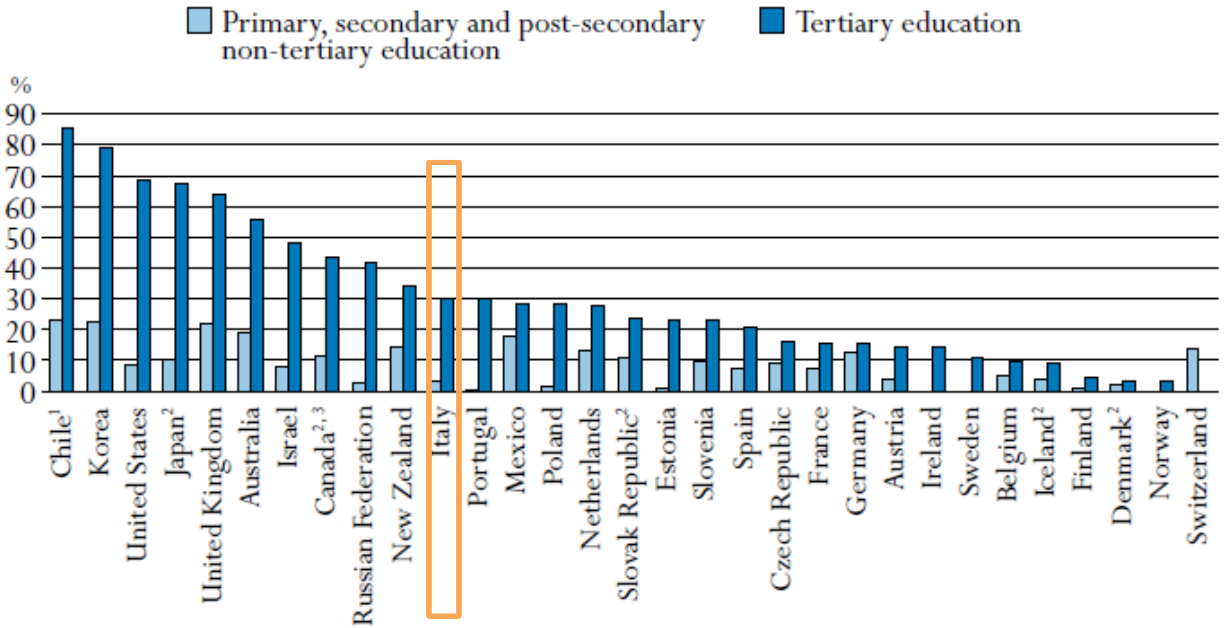
1. Public expenditure only (for Switzerland, in tertiary education only).
2. Year of reference 2008 instead of 2007.
3. Year of reference 2006 instead of 2007.

Countries are ranked in descending order of expenditure from both public and private sources on educational institutions in 2007.

Quota della spesa privata in istruzione

of total spending on educational institutions. This includes all money transferred to educational institutions from private sources, including public funding via subsidies to households, private fees for educational services or other private spending (e.g. on accommodation) which goes through the institution.

On average in OECD countries over 90% of primary, secondary and post-secondary non-tertiary education, and never less than 80% (except in Chile, Korea and the United Kingdom), is paid for publicly. However, in tertiary education the proportion funded privately varies widely, from less than 5% in Denmark, Finland and Norway, to more than 40% in Australia, Canada, Japan, the United Kingdom, the United States and the partner countries Israel and the Russian Federation, and to over 75% in Chile and Korea. As in the case of tertiary graduation and entry rates, the proportion of private funding may be affected by the presence of international students, who represent a relatively high proportion of students in Australia and New Zealand.



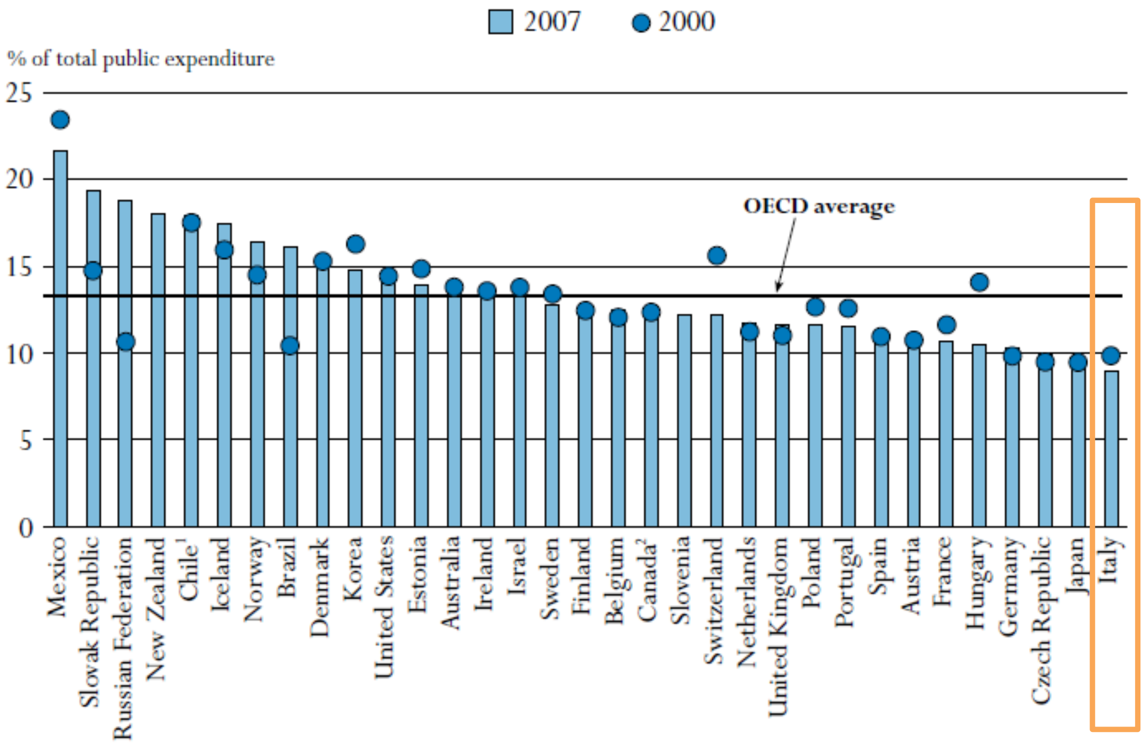
1. Year of reference 2008.
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
3. Year of reference 2006.

Countries are ranked in descending order of the share of private expenditure on educational institutions for tertiary education.

Quota della spesa pubblica in istruzione sul totale della spesa pubblica

The chart shows direct public expenditure on educational institutions plus public subsidies to households (which include subsidies for living costs such as scholarships and grants to students/households and students loans), and other private entities, as a percentage of total public expenditure, by year. It must be recalled that public sectors differ in terms of their size and breadth of responsibility from country to country.

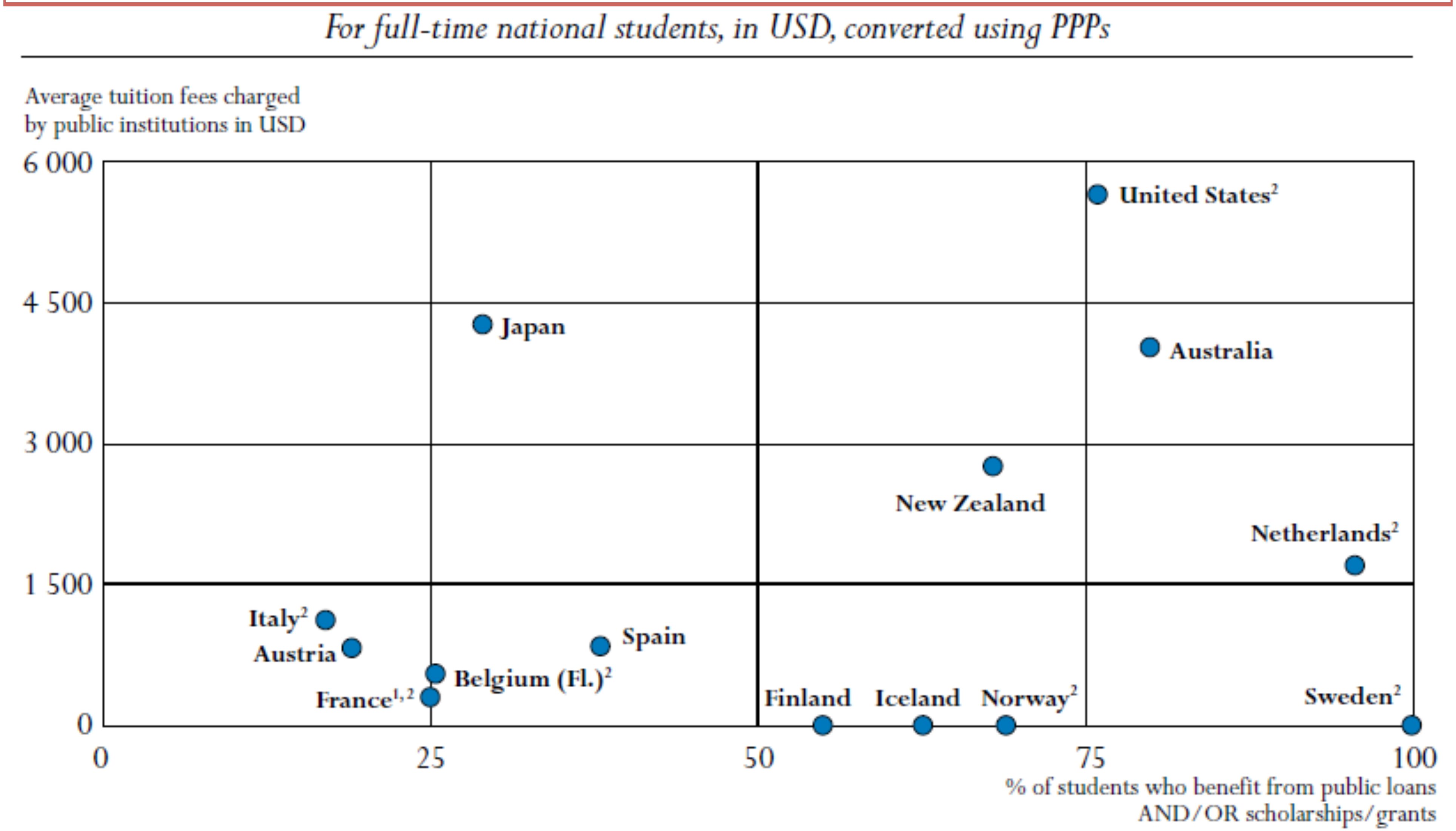
On average, OECD countries devote 13.3% of total public expenditure to education in 2007, but values for individual countries range from less than 10% in the Czech Republic, Italy and Japan, to nearly 22% in Mexico. The proportion of public expenditure on education increased between 1995 and 2007 in 18 of the 27 countries with comparable data in both 1995 and 2007. However, the main increase took place from 1995 to 2000, while public expenditure on education and on other public sectors increased in the same proportions from 2000 to 2007.



1. Year of reference 2008 instead of 2007.
2. Year of reference 2006 instead of 2007.

Countries are ranked in descending order of total public expenditure on education at all levels of education as a percentage of total public expenditure in 2007.

Tasse universitarie medie nelle università pubbliche e borse di studio

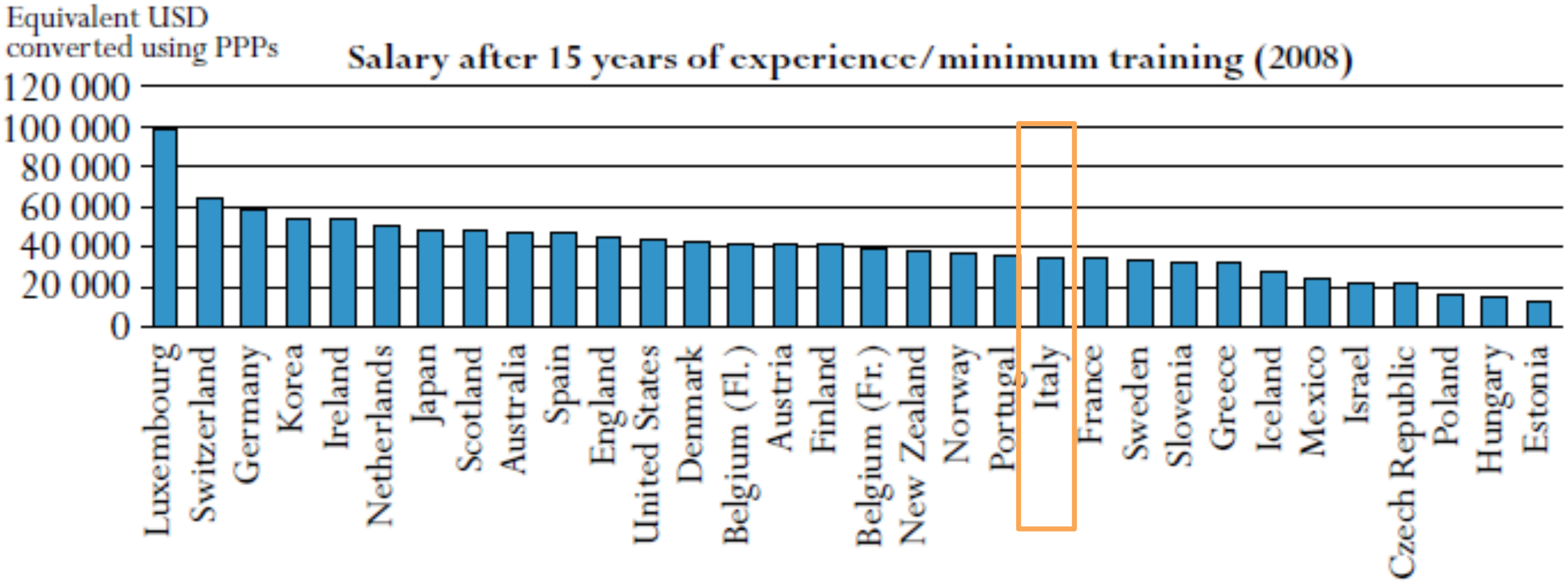


1. Average tuition fees from USD 179 to USD 1 206 for university programmes dependent from the Ministry of Education.
2. Year of reference 2007-08.

Gli stipendi dei professori delle scuole medie

Annual statutory teachers' salaries in public institutions in lower secondary education, in equivalent USD converted using PPPs, and the ratio of salary after 15 years of experience to earnings for full-time full-year workers with tertiary education aged 25 to 64

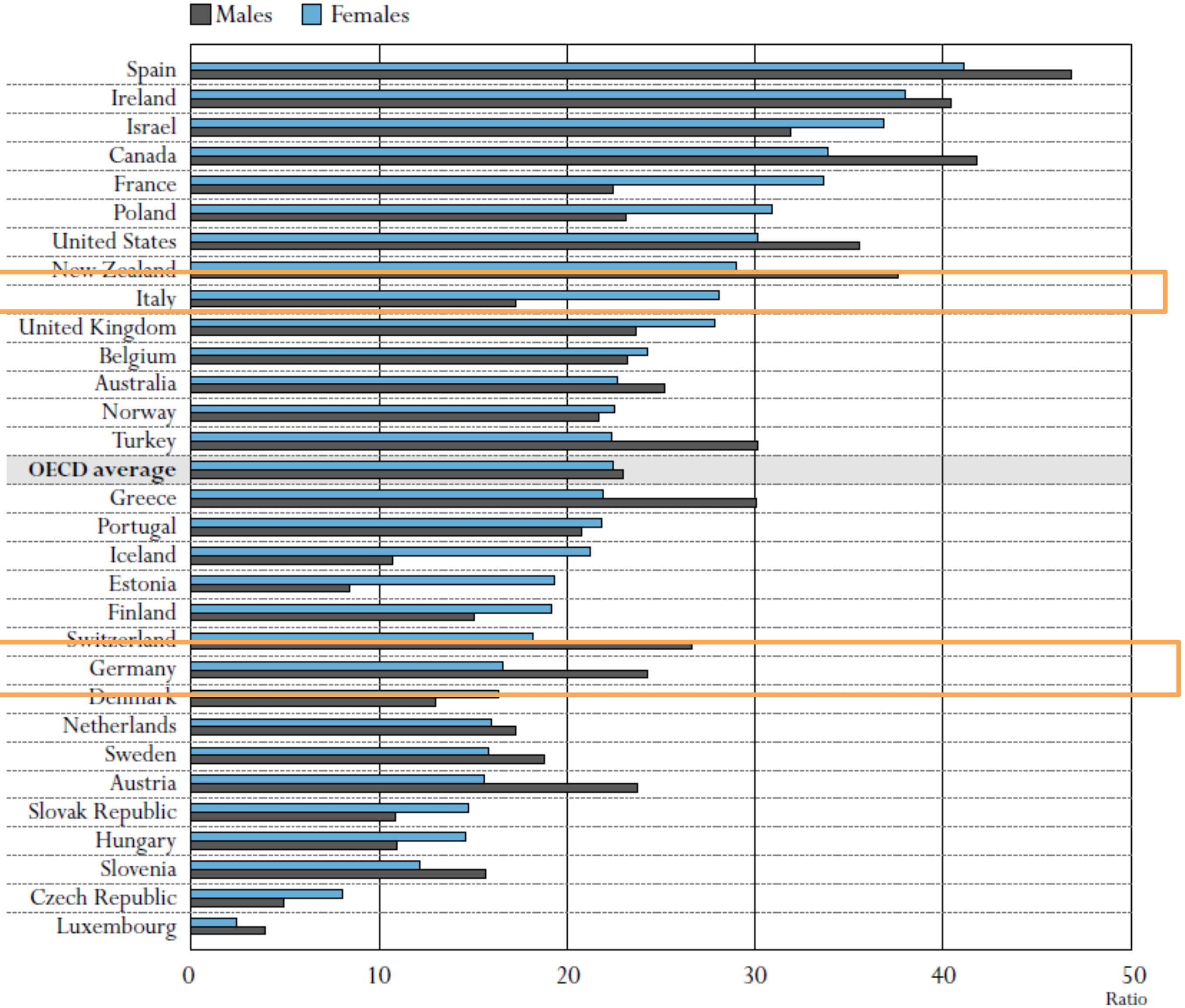
Salaries of teachers with at least 15 years of experience at the lower secondary level range from less than USD 16 000 in Hungary and in the partner country Estonia to USD 54 000 or more in Germany, Ireland, Korea and Switzerland, and exceed USD 98 000 in Luxembourg.



Quello che insegniamo serve?

Chart C3.5. Education and occupational mismatches between young males and females (2007)

Ratio of 25-29 year-old workers not in education with a tertiary-level degree working at skill levels 1 or 2 (ISCO 4-9) to all 25-29 year-old workers not in education with a tertiary degree



Countries are ranked in descending order of the proportion of 25-29 year-old female workers not in education with a tertiary degree working at skill levels 1 or 2 (ISCO 4-9) to all 25-29 year-old workers not in education with a tertiary degree.

Rendimenti non monetari

Chart A11.1. **Proportion of adults satisfied with life, by level of education (2008)**

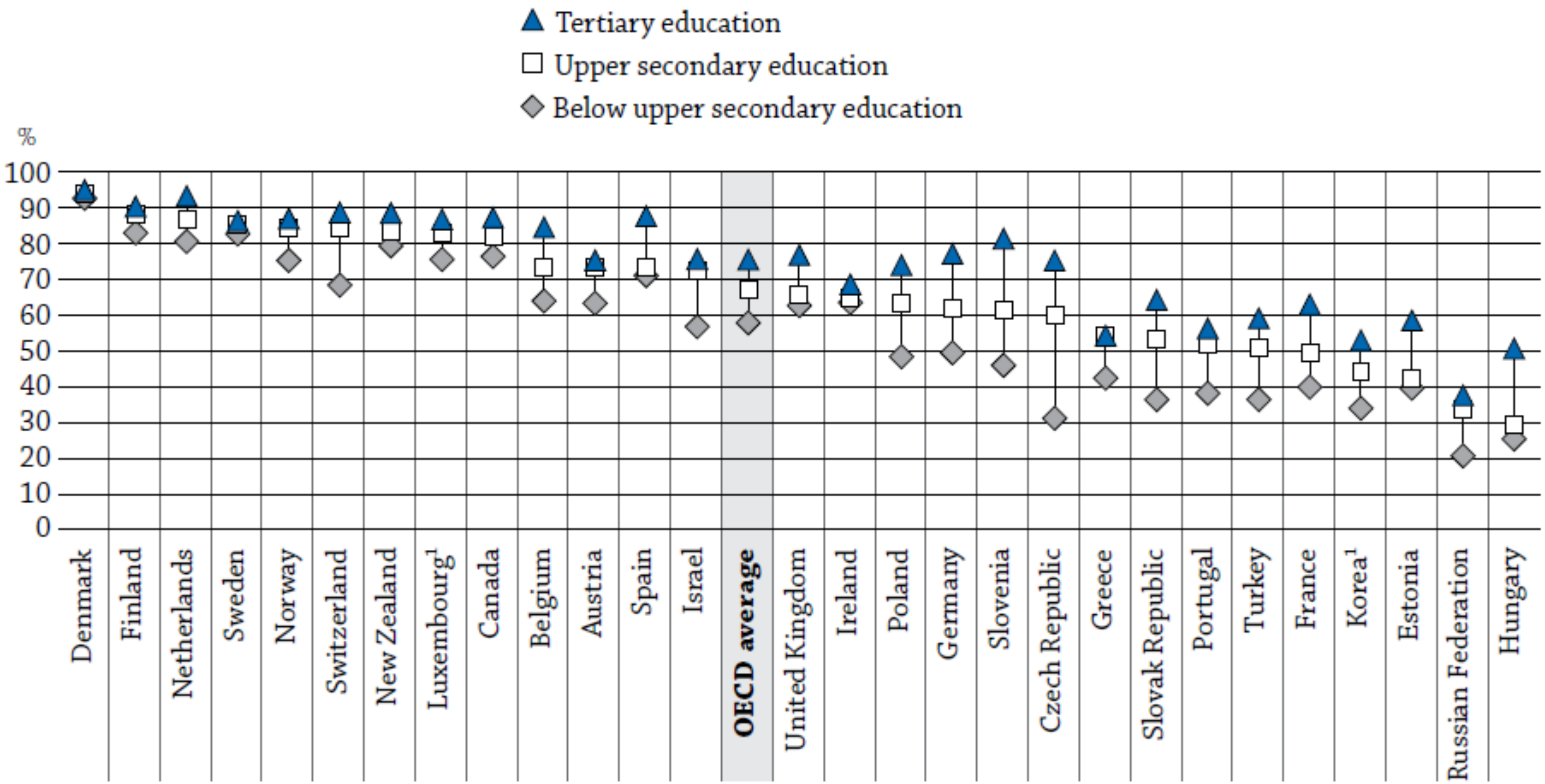


Chart A11.2. Proportion of adults voting and volunteering, by level of education (2008)

Percentage of 25-64 year-olds, by educational attainment