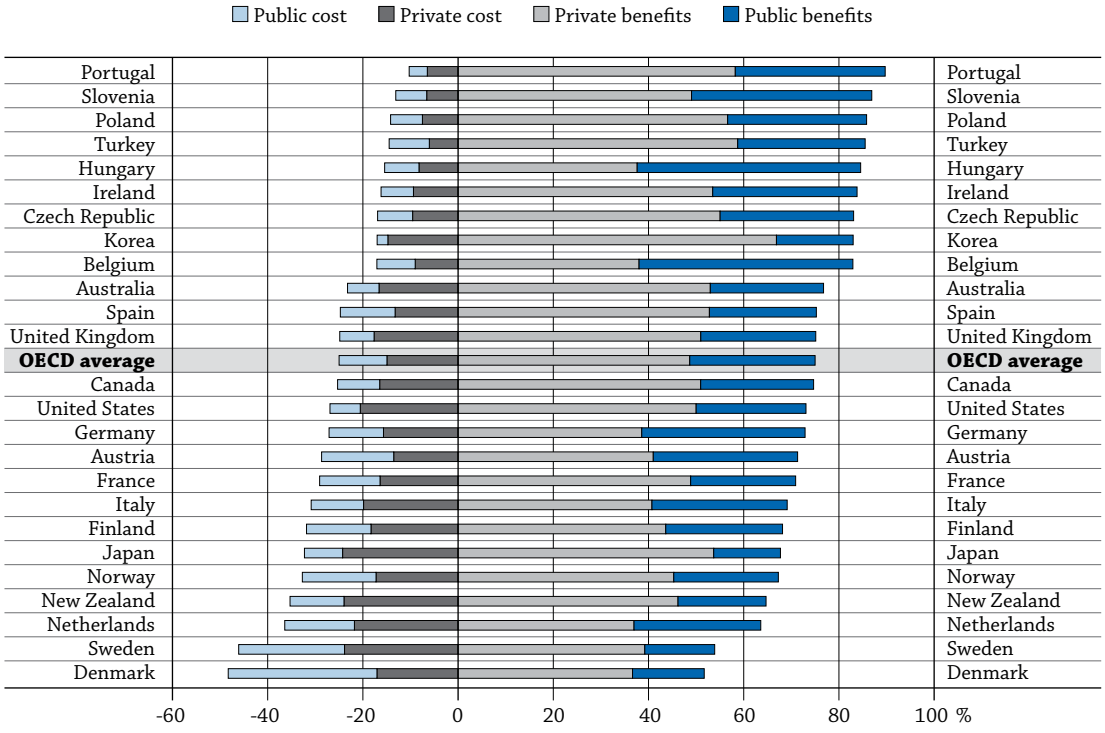
WHAT ARE THE INCENTIVES TO INVEST IN EDUCATION?

- On average across 25 OECD countries, the total return (net present value), both private and public, to a man who successfully completes upper secondary and tertiary education is USD 380 000.
- The net public return on an investment in tertiary education is USD 91 000 for men – almost three times the amount of public investment.
- On average, the gross earnings premium for an individual with a tertiary degree exceeds USD 300 000 for men and USD 200 000 for women across OECD countries.

Chart A9.1. Distribution of public/private costs/benefits for a woman obtaining tertiary education as part of initial education, ISCED 5/6 (2007 or latest available year)



Notes: Australia, Belgium and Turkey refer to 2005; Ireland, Italy, the Netherlands, Poland, Portugal and the United Kingdom refer to 2006. All other countries refer to 2007.
Cashflows are discounted at a 3% interest rate.
Countries are ranked in descending order of the benefits (public+private) as a proportion of total (public+private), net present value for females immediately acquiring tertiary education , ISCED 5/6.
Source: OECD, Tables A9.3 and 9.4. See Annex 3 for notes (*www.oecd.org/edu/eag2011*).
StatLink http://dx.doi.org/10.1787/888932460610

Context

The financial benefits of completing higher levels of education motivate individuals to postpone consumption today for future rewards. From a policy perspective, awareness of economic incentives is crucial to understanding how individuals move through the education system. Large shifts in the demand for education can drive up earnings and returns considerably before supply catches up. This provides a strong signal, both to individuals and to the education system, of the need for additional investment.

In some countries, however, the labour market may not effectively signal demand because of rigid labour laws and structures that tend to compress wages across different educational groups. Apart from these labour-related issues, major components of the return to education are directly linked to policy: access to education, taxes and the costs of education for the individual. The economic benefits of education flow not only to individuals but also to society, in lower social transfers and in the additional taxes individuals pay once they enter the labour market. In shaping policies, it is important to consider the balance between private and public returns.

Other findings

- In Austria, Norway, Portugal, the United Kingdom and the United States, a man with an **upper secondary or post-secondary non-tertiary education can expect a gross earnings premium of more than USD 200 000** over his working life compared with a man who has not attained that level of education.
- **The value of the gross earnings premium for men and women with a tertiary education is substantial.** For example, over the course of their working lives, tertiary-educated men in Hungary, Ireland, Italy, Korea, Portugal, Slovenia and the United Kingdom can expect to earn at least USD 400 000 more than those with an upper secondary and post-secondary non-tertiary education. In the United States, this figure exceeds USD 600 000.
- On average across OECD countries with comparable data, **a woman who invests in tertiary education can expect a net gain of more than USD 100 000.** In Ireland, Korea, Portugal, Slovenia, the United Kingdom and the United States, the investment generates a net present value over USD 150 000 – a strong incentive to complete this level of education.
- **An individual invests an average of USD 50 000 to acquire a tertiary qualification**, when direct and indirect costs are taken into account. In Japan and the United States, this investment exceeds USD 100 000 in the case of a man who obtains a tertiary education.

Analysis

Financial returns on investment in education

The overall benefits of education can be assessed by estimating the economic value of the investment in education, which essentially measures the degree to which the costs of attaining higher levels of education translate into higher levels of earnings.

To understand how costs and benefits are shared between the private and public side, the calculation of benefits includes taxes, social contributions and social transfers as well as differences in the probability of finding work by educational level. The cost components include public and private direct costs, as well as foregone earnings while in school, adjusted for the probability of finding work, and for foregone taxes, social contributions and social transfers. This indicator relies on 2007 data or earlier latest available year.

In practice, raising levels of education will give rise to a complex set of fiscal effects beyond those taken into account here. As earnings generally increase with educational attainment, those individuals with higher levels of education consume more goods and services, and thus pay additional taxes on their consumption. Public returns are thus underestimated in the following calculations.

Individuals with higher earnings typically also pay more into their pension schemes and, after leaving the labour force, will have a further income advantage that is not taken into account in the calculations here. Similarly, many governments have schemes that provide loans to students at interest rates below those used in this exercise. These subsidies can often make a substantial difference in the returns to education for the individual. Given these factors, the returns on education in different countries should be assessed with caution.

Both costs and benefits are discounted back in time at a real discount rate of 3%, reflecting the fact that the calculations are made in constant prices (see Methodology section for further discussion of the discount rate). The economic benefits of tertiary education are compared to those of upper secondary education; for upper secondary education, below upper secondary education is used as a point of reference. In the calculations, women are benchmarked against women and men against men.

Incentives for the individual to invest in education

Upper secondary education or post-secondary non-tertiary education

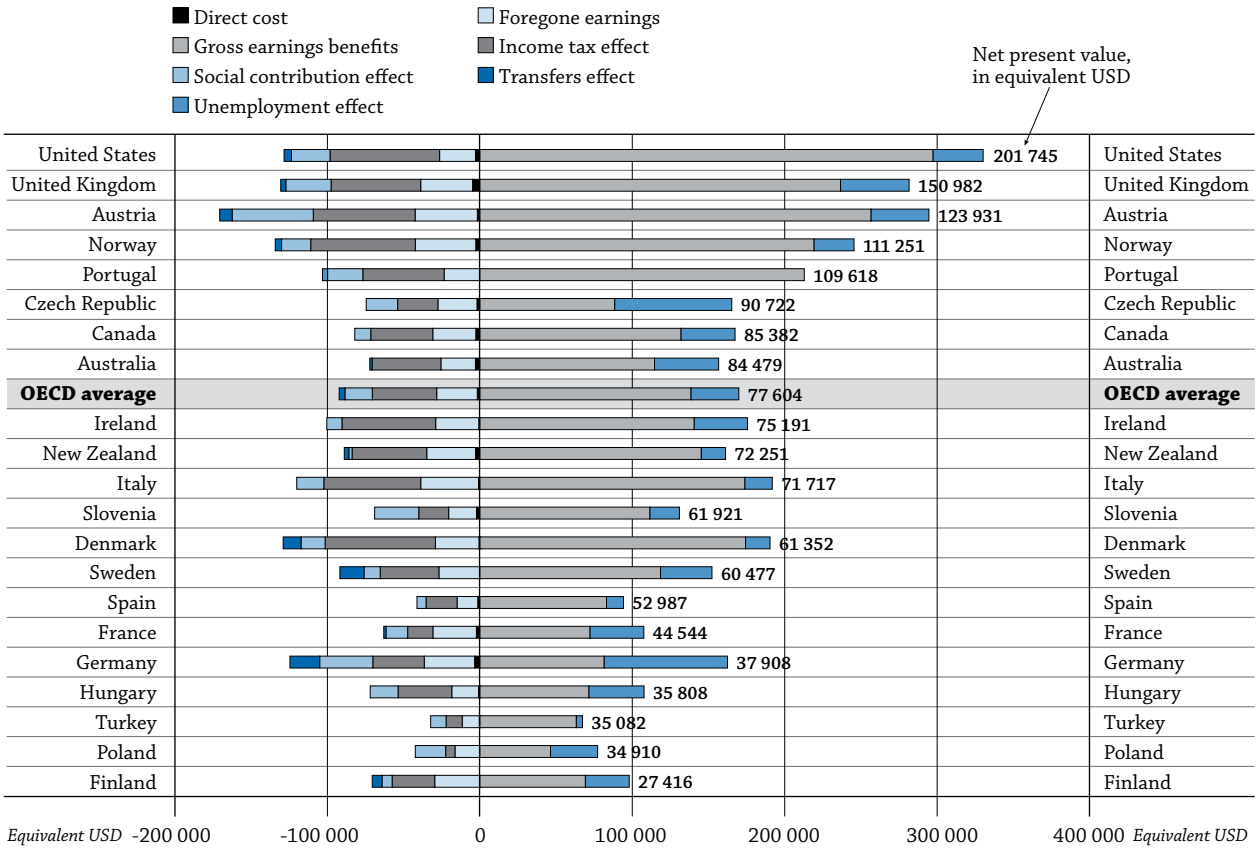
Table A9.1 shows the value of each component and the net present value of the overall investment for a young woman and a young man attaining an upper secondary or a post-secondary non-tertiary education.

The direct costs of education for a man investing in an upper secondary or post-secondary non-tertiary education are usually negligible; the main investment cost is foregone earnings (Chart A9.2). Depending on the length of education, salary levels and the possibility of finding a job, foregone earnings vary substantially among countries. In Spain and Turkey, foregone earnings are less than USD 15 000, while in Austria, Italy and Norway, they exceed USD 35 000. Good labour-market prospects for young individuals who have not attained an upper secondary education increase the costs of further investment in education.

Gross earnings and reduced risk of unemployment over an individual's working life make up the benefit side. In most countries, men with an upper secondary or post-secondary non-tertiary education enjoy a significant earnings premium over those who have not attained that level of education. The value of reduced chances of unemployment can also be large. In the Czech Republic and Germany, the better employment prospects for men with this level of education are valued at USD 75 000 or more.

Additional education beyond compulsory schooling produces large returns from both the individual's and the public's perspective. A man who invests in upper secondary education or post-secondary non-tertiary education can expect a net gain of more than USD 78 000 during his working life over a man who has not attained that level of education. However, the amount varies significantly among countries: in the United Kingdom and the United States, this level of education generates over USD 150 000; but in Finland, Germany, Hungary, Poland and Turkey, the net benefits are less than USD 40 000 (Table A9.1).

Chart A9.2. Components of the private net present value for a man obtaining an upper secondary or post-secondary non-tertiary education, ISCED 3/4 (2007 or latest available year)



Notes: Australia, Belgium and Turkey refer to 2005; Italy, the Netherlands, Poland, Portugal and the United Kingdom refer to 2006. All other countries refer to 2007.
Cashflows are discounted at a 3% interest rate.
Countries are ranked in descending order of the net present value.
Source: OECD, Table A9.1. See Annex 3 for notes (*www.oecd.org/edu/eag2011*).
StatLink http://dx.doi.org/10.1787/888932460629

Men generally enjoy better financial returns on their upper secondary or post-secondary non-tertiary education than women, except in Hungary, Ireland, Italy, Poland and Spain. On average across OECD countries, a woman can expect a net gain of USD 63 000 over her working life. Some countries' social safety nets may work against women investing in further education and upper secondary education, in particular. In these countries, low wages for women who do not have an upper secondary education may be supplemented by social benefit schemes, removing some of the income advantage in completing an upper secondary education.

Tertiary education

The rewards to individuals with a tertiary education are, on average, twice as large as the rewards for those with an upper secondary education, reflecting 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.

The rewards for investing in tertiary education are typically higher for men, except in Australia, Spain and Turkey, where the returns are higher for women (Table A9.3). On average across OECD countries, a woman investing in tertiary education can expect a net gain of USD 110 000, while a man can expect a net gain of almost USD 175 000.

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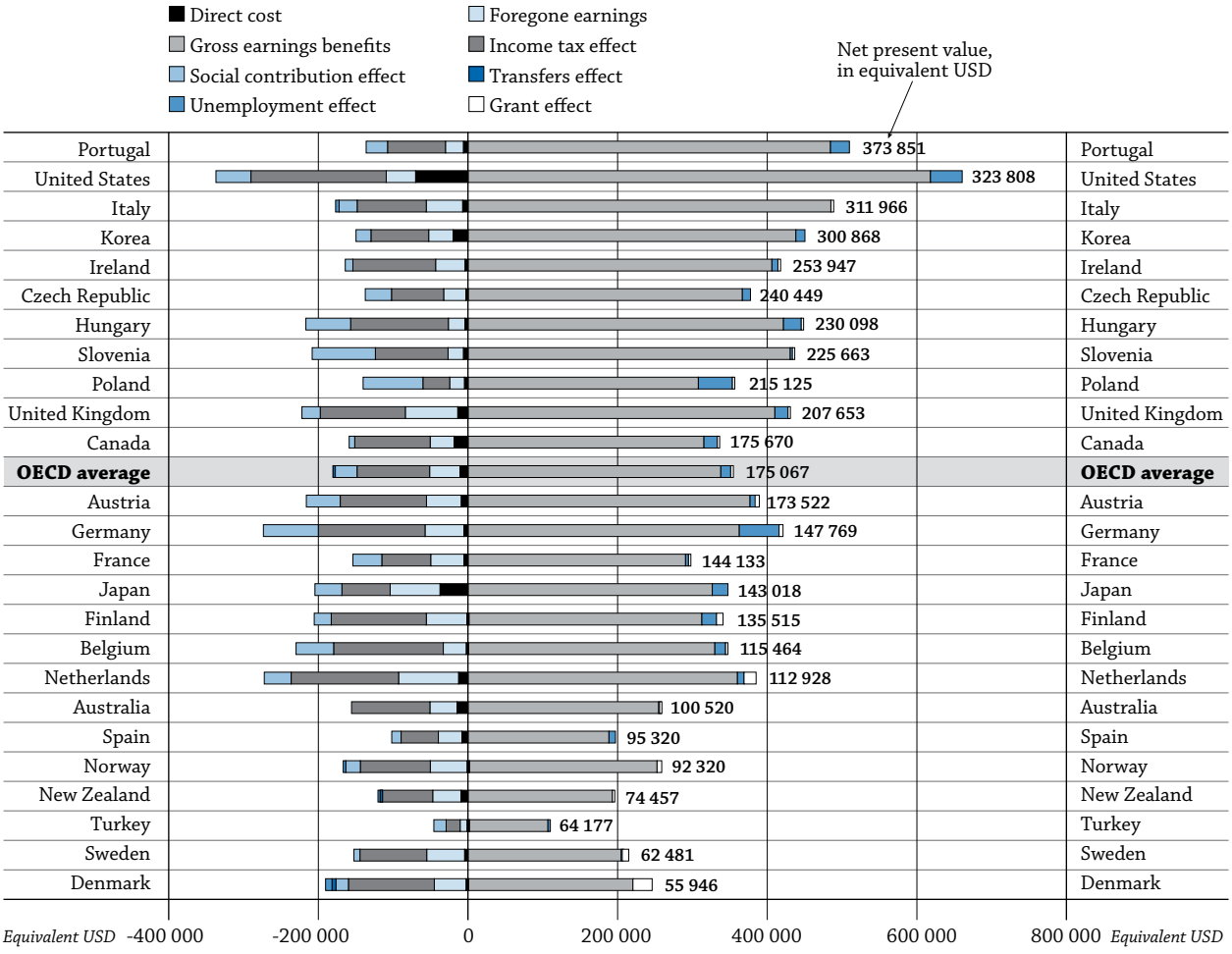
The value of the gross earnings premium for men and women with tertiary education is substantial. Men in Hungary, Ireland, Italy, Korea, Portugal, Slovenia, the United Kingdom and the United States can expect to earn at least an additional USD 400 000 over their working lives compared to an individual with an upper secondary and post-secondary non-tertiary education.

Chart A9.3 shows the components of the returns on tertiary education for men in different countries. Compared with upper secondary and post-secondary non-tertiary education, the impact of unemployment benefits is less pronounced than the earnings differential; and taxes and the direct costs of education are more substantial.

Tertiary education brings substantial rewards for men in Italy, Korea, Portugal and the United States, where an investment generates over USD 300 000 and thus gives a strong incentive to complete this level of education. The returns on tertiary education are lower in Denmark, New Zealand, Sweden and Turkey, where a man with a tertiary education can expect a net gain of between USD 56 000 and USD 74000 over his working life.

Chart A9.3. Components of the private net present value for a man obtaining tertiary education, ISCED 5/6 (2007 or latest available year)



Notes: Australia, Belgium and Turkey refer to 2005; Italy, the Netherlands, Poland, Portugal and the United Kingdom refer to 2006. All other countries refer to 2007.
Cashflows are discounted at a 3% interest rate.
Countries are ranked in descending order of the net present value.
Source: OECD, Table A9.3. See Annex 3 for notes (*www.oecd.org/edu/eag2011*).
StatLink http://dx.doi.org/10.1787/888932460648

Much of the difference between countries is driven by earnings differentials. Factors such as supply and demand for highly educated individuals are important in some countries while the overall reward structure in the labour market (overall wage compression) plays an important role in other countries.

One way to mitigate weak labour market returns is to provide higher education at lower costs for the individual. Apart from subsidising the direct costs of education, a number of countries also provide students with loans and grants to improve incentives and access to education. Grants are particularly important in Austria, Denmark, Finland, the Netherlands and Sweden, where they make up more than 15% of the total investment cost (direct costs and foregone earnings). In Denmark, over 55% of the total private investment is covered by government grants.

Many countries also have favourable and substantial student loans that further lower investment costs and make investing more attractive (this will be further explored in forthcoming editions of *Education at a Glance*). Both grants and loans are particularly important tools for recruiting students from less affluent backgrounds. There is, of course, a danger in focusing only on the supply side of the investment. As younger generations become more mobile, a reward structure that does not adequately compensate more highly educated individuals could eventually lead to a loss of these individuals to countries with higher earnings potentials.

Box A9.1. Estimating returns to education

There are two main approaches to estimating the financial returns to education: one founded on financed-based investment theory, the other on labour economics-based econometric specification.

The basis for an investment approach is the discount rate (the time-value of money), which makes it possible to compare costs or payments (cash flows) over time. The discount rate can be estimated either by raising it to the level at which financial benefits equal costs, which is then the internal rate of return, or by setting the discount rate at a rate that takes into consideration the risk involved in the investment, which is then a net present value calculation, with the gains expressed in monetary units.

The econometric approach taken in labour economics originates from Mincer (1974). In this approach, returns to education are estimated in a regression relating earnings to years of education, labour market experience and tenure. This basic model has been extended in subsequent work to include educational levels, employment effects and additional control variables such as gender and work characteristics (part-time, firm size, contracting arrangements, utilisation of skills, etc.). The drawback of a regression approach is typically the scarcity of information beyond gross earnings to determine public and private returns, which makes it difficult to assess the actual incentives for individuals to invest in education.

Apart from availability of data, the main difference between the two approaches is that the investment approach is forward-looking (although historical data are typically used) whereas an econometric approach tries to establish the actual contribution of education to gross earnings by controlling for other factors that can influence earnings and returns. This distinction has implications for the assumptions and for the interpretation of returns to education. As the investment approach focuses on the incentives at the time of the investment decision, it is prudent not to remove the effects of (controlling for) other factors, such as work characteristics, as these are not known *ex-ante* and could be seen as part of the average returns that an individual can expect to receive when deciding to invest in education.

Depending on the impact of the control variables and how steep the earnings curves are, the results of the two approaches can diverge quite substantially. Returns may differ within discounting models, too, depending on other underlying assumptions, the size of cash flows and how these are distributed over the life span. It is therefore generally not advisable to compare rates of return from different approaches or studies.

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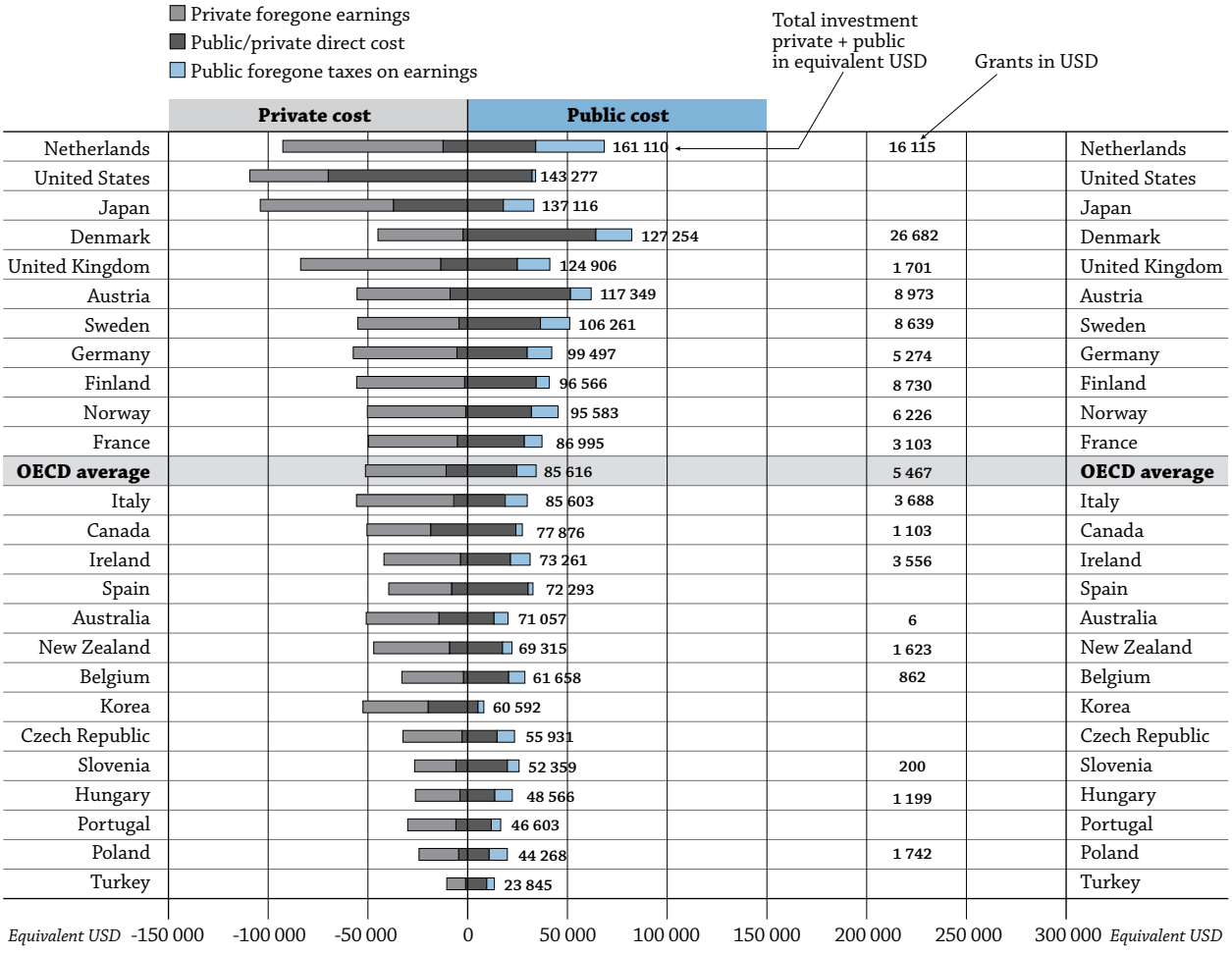
There are some trade-offs between taxes and the direct costs of education (tuition fees) that are linked to government support for higher education. In countries with low or no tuition fees, individuals typically pay back public subsidies later in life through progressive tax schemes. In countries in which a larger portion of the investment falls on the individual, in the form of tuition fees, earnings differentials are larger and a larger portion of them accrues to the individual. In general there is a positive link, albeit a weak one, between the private direct costs of education and the overall net present value of the education.

Public rate of return on investments in education

Tables A9.2 and A9.4 show the public returns to individuals who obtain upper secondary or post-secondary non-tertiary and tertiary education as part of initial education. Chart A9.4 shows the public and private costs for men who invest in tertiary education. On average across OECD countries, over USD 85 000 is invested in a man's tertiary education, taking into account public and private spending, as well as indirect costs in the form of public and private foregone earnings and taxes. In Austria, Denmark, Japan, the Netherlands, Sweden, the United Kingdom and the United States, the value of investment costs exceeds USD 100 000 (Chart A9.4).

Chart A9.4. Public versus private investment for a man obtaining tertiary education, ISCED 5/6 (2007 or latest available year)



Notes: Australia, Belgium and Turkey refer to 2005; Italy, the Netherlands, Poland, Portugal and the United Kingdom refer to 2006. All other countries refer to 2007.
Cashflows are discounted at a 3% interest rate.
Countries are ranked in descending order of the total public + private cost.
Source: OECD, Tables A9.3 and A9.4. See Annex 3 for notes (*www.oecd.org/edu/eag2011*).
StatLink http://dx.doi.org/10.1787/888932460667

Direct costs for 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 earnings in the form of taxes and social contributions, direct and indirect public investment costs for a man with a tertiary education exceed USD 50 000 in Austria, Denmark, the Netherlands and Sweden. In Korea and Turkey, the total public investment cost does not exceed USD 15 000. On average among OECD countries, the total value of public investment for a man who obtains a tertiary qualification is USD 34 000 (Table A9.4).

Although public investments in tertiary education are large in many countries, private investment costs are larger in most countries. In Japan, the Netherlands, the United Kingdom and the United States, an individual invests over USD 80 000 to acquire a tertiary qualification when direct and indirect costs are taken into account. On average across OECD countries, direct costs, such as tuition fees, constitute approximately 20% of the total investment made by a tertiary graduate. In the United States, direct costs represent more than 60% of the investment, and in Canada, Japan and Korea, between 35%-40% (Table A9.3).

The decision to continue education at the tertiary level is a difficult one to take, since much is at stake, particularly for young individuals from less affluent backgrounds. To alleviate the financial burden, most countries provide grants to students. These are particularly large in Denmark (USD 25 700) and the Netherlands (USD 16 100). Note that these grants are not included in the private and public costs shown in Chart A9.4 but are displayed to illustrate the magnitude of these transfers between the private and public side. With the substantial private and public gains from tertiary investments, financial support in the form of grants and loans are important to ensure that people are not prevented from making these investments because of financial constraints.

For an individual, foregone earnings make up a substantial part of overall investment costs. In countries with lengthy tertiary education, such as Finland, Germany, the Netherlands and Sweden, foregone earnings are large (see Indicator B1). Earnings foregone also depend on expected wage levels and the probability of finding a job. As the labour market for young adults worsens (see Indicator C4) investment costs will fall. As higher-educated individuals typically fare better in the labour market in times of economic hardship, larger earnings differentials further improves the benefit side. The incentives to invest in education from both the private and public side are likely to be greater in most OECD countries in the coming years.

Investments in education also generate public returns from higher income levels in the form of income taxes, increased social insurance payments and lower social transfers. Chart A9.5 compares the public costs and economic benefits when a man invests in an upper secondary or post-secondary non-tertiary education and in tertiary education.

The public returns for a man investing in upper secondary or post-secondary non-tertiary education are positive in all countries. On average across OECD countries, this level of education generates a net return of USD 36 000; in Austria, the United Kingdom and the United States, it generates a net return of more than USD 70 000. The public returns to a woman investing in this level of education are USD 10 000 less than for a man, on average across OECD countries (Table A9.2). Nonetheless, the benefits are more than twice as large, on average, as the overall public costs for upper secondary or post-secondary non-tertiary education, for both men and women. In a few countries, students need to continue beyond upper secondary education for the public sector to reap the full benefits.

The public returns to tertiary education are substantially larger than the public 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 exceeds USD 190 000 over an individual's working life (Chart A9.5).

On average across OECD countries, the net public return on an investment in tertiary education is over USD 90 000 for a man and USD 55 000 for a woman at this level of education. Even after taking into account student grants, the public benefits outweigh the costs by more than four times, on average. In Hungary and Korea, the benefits are 10 times larger than the public sector's initial investment in a student's tertiary education.

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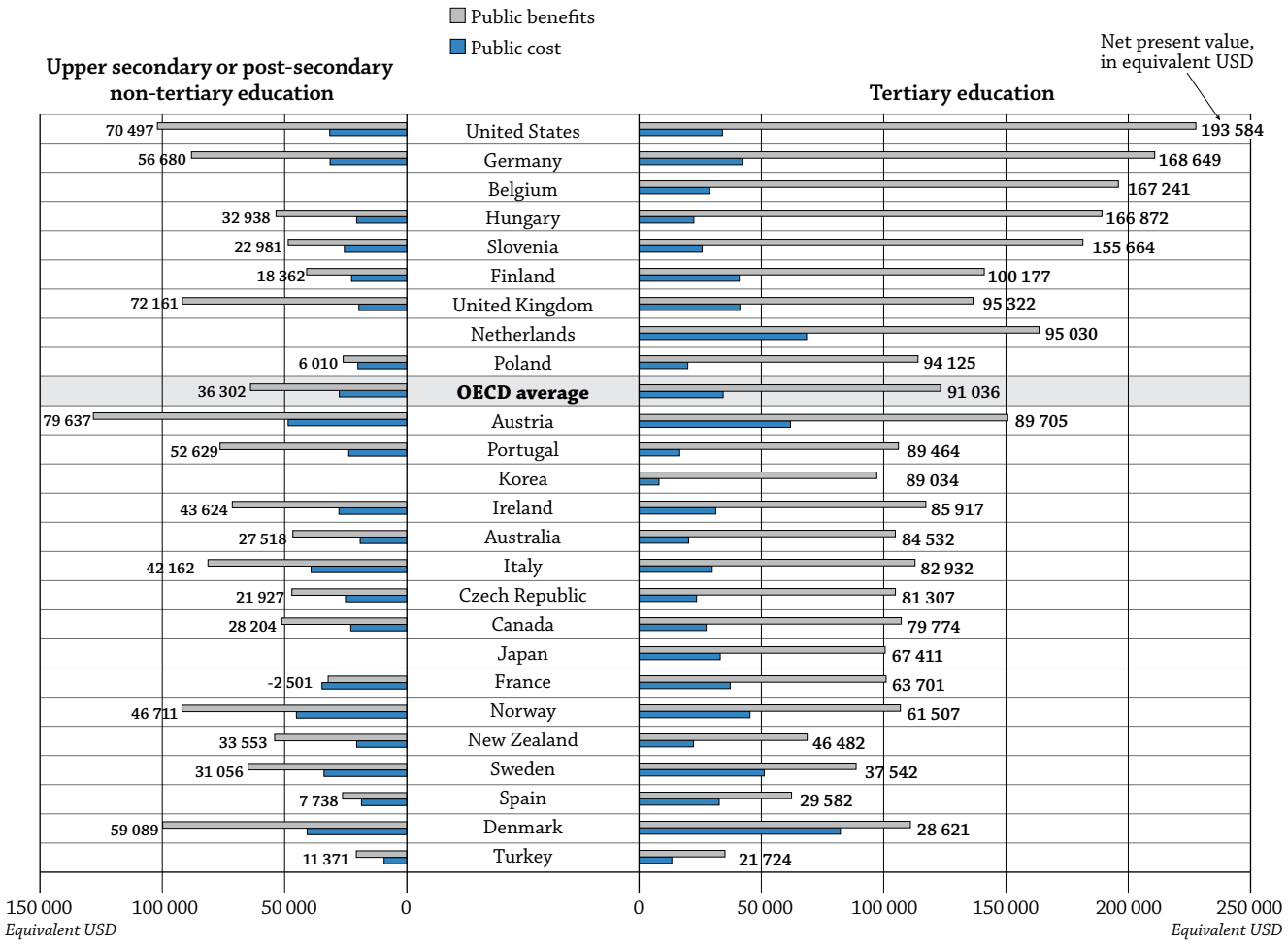
Chart A9.5. Public cost and benefits for a man obtaining upper secondary or post-secondary non-tertiary education and tertiary education (2007 or latest available year)



Notes: Korea is not included in the chart because of data-quality issues at that level. Japan is not included because the data at lower and upper secondary level of education are not broken down. The Netherlands are not included in the table because upper secondary education is compulsory. Australia, Belgium and Turkey refer to 2005; Italy, the Netherlands, Poland, Portugal and the United Kingdom refer to 2006. All other countries refer to 2007.

Cashflows are discounted at a 3% interest rate.

Countries are ranked in descending order of the net present value at tertiary level of education.

Source: OECD, Tables A9.2 and A9.4. See Annex 3 for notes (*www.oecd.org/edu/eag2011*).

StatLink http://dx.doi.org/10.1787/888932460686

Returns on investments, taxation and labour-market rewards

The overall wage dispersion drives much of the returns for both the individual and the public sector. A compressed wage structure will typically generate lower returns to higher education. This is particularly true in the Nordic countries – Denmark, Norway and Sweden – and in New Zealand. The Nordic countries have generally offset the effects of this weak reward structure by providing a higher education system almost free of charge and by having a generous student-grant system; New Zealand has shared some of the direct costs with the individual and has kept income taxes low (see Indicator A10).

A number of countries have substantially larger overall income inequality, which is also reflected in the gross earnings benefits for those with tertiary education. In some countries with overall lower cost structures supply and demand appears to drive earnings differentials.

Although overall costs and income levels are low in the Czech Republic, Hungary, Poland, Portugal and Slovenia, higher education generates a substantially larger gross earnings premium over the working life than in the previous group of countries. Tertiary attainment levels in the working-age population are considerably below the OECD average (see Indicator A1), and the earnings premium has increased over the past decade in most of these countries (see Indicator A8). This suggests a short supply of higher-educated individuals, which has driven up wages and overall wage inequality over the years. As a result, the incentives are strong to make further investments, and this is also evident in the substantially higher entry rates into higher education in recent years (see Indicator A2). Given that the demand for more highly educated workers will continue to grow, it will take some time before a balance is reached.

The demand for higher-educated individuals appears to outpace the supply in other countries as well. Relative earnings have increased markedly over the past decade in Germany (by 22 percentage points), Italy and the United States (Table A8.2a). While tertiary attainment is high in the United States (41%), it is lower in Germany (26%) and substantially lower in Italy (15%) than the OECD average of 30% (Table A1.3a). To what extent the supply of higher-educated individuals matches the demand for them depends less on the overall level of tertiary-educated individuals and more on the industry structure and the pace of economic development. As a response to increasing demand and larger premiums, entry rates into tertiary education have increased in all three countries over the past 10 years, but less so in Italy and Germany where they are still below the OECD average (Table C2.2).

Given that the earnings premium and gross earnings benefits vary substantially among OECD countries, tax payments and benefits to the public sector also vary in ways that are somewhat contradictory to common perception. Because of low earnings premium in the Nordic countries, average tertiary earnings are typically below the income bracket where high marginal taxes are exercised. Instead, the largest public gains in tax and social security benefits from higher education typically occur in countries where earnings differentials are large or where average earnings levels reach high income-tax brackets.

The additional taxes and social contributions paid by those with a tertiary education are large in Belgium, Germany, Hungary, the Netherlands, Slovenia, and the United States, for example, stressing the importance for public policy to take a broad approach to strategic decisions on educational investments. Taxation and social policies also play an important role in promoting the supply of labour and are thus key to reaping the full benefits of the investments made in education.

It is important to note, however, that a number of countries have tax policies that effectively lower the actual tax paid by individuals, particularly by those in high income brackets. Tax relief for interest payments on mortgage debt have been introduced in many OECD countries to encourage homeownership. These schemes essentially favour those with higher education and high marginal taxes. The tax incentives for housing are particularly large in the Czech Republic, Denmark, Finland, Greece, the Netherlands, Norway, Sweden and the United States. For further information, see Andrews, *et al.* (2011).

Methodology

In calculating the returns to education, the approach taken here is the **net present value (NPV)** of the investment. In this framework, lifetime costs and benefits are transferred back to the start of the investment. This is done by discounting all cash flows back to the beginning of the investment with a set rate of interest (discount rate). The choice of interest rate is difficult, as it should reflect not only the overall time horizon of the investment, but also the cost of borrowing or the perceived risk of the investment. To keep things simple, and to make the interpretation of results easier, the same discount rate is applied across all OECD countries.

To arrive at a reasonable discount rate, long-term government bonds have been used as a benchmark. The average long-term interest rate across OECD countries was approximately 4.8% in 2007. Assuming that countries' central banks have succeeded in anchoring inflation expectations at or below 2% per year, a long-term nominal interest rate of 4.8% implies a real interest rate of 2.5% to 3%. The 3% real discount rate used

in this indicator reflects the fact that calculations are made in constant prices. The change in the discount rate since the 2009 edition of *Education at a Glance* has a substantial impact on the net present value of education, and that must be taken into account if returns are compared across different editions of the publication.

Discounting the costs and benefits to the present value with this interest rate makes the financial returns on the overall investment and values of the different components comparable across time and countries. Using the same unit of analysis also has the advantage of making it possible to add or subtract components across different educational levels or between the private and public sectors to understand how different factors interact.

NPV calculations are based on the same method as **internal rate of return (IRR)** calculations. The main difference between the two methods lies in how the interest rate is set. For calculations developed within the IRR framework, the interest rate is raised to the level at which the economic benefits equal the cost of the investment and it pinpoints the discount rate at which the investment breaks even.

In calculating the NPV, private investment costs include after-tax foregone earnings adjusted for the probability of finding a job (unemployment rate) and direct private expenditures on education. 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).

These gross earnings differentials are adjusted for differences in income taxes, social contributions and social transfers, including housing benefits and social assistance related to earnings level, to arrive at net earnings differentials. The cash flows are further adjusted for probability of finding a job (unemployment rates). The calculations are done separately for men and women to account for differences in earnings differentials and unemployment rates.

In calculating public NPV, public costs include lost tax receipts during the years of schooling (income tax and social contributions) and public expenditures, taking into account the duration of studies. Lost tax receipts are low in some countries because young individuals have low earnings levels. Public expenditures on education include direct expenditures, such as payment of teachers' salaries or spending for the construction of school buildings, purchase of textbooks, etc., and public-private transfers, such as public subsidies to households for scholarships and other grants and to other private entities for providing training at the workplace, etc. The benefits for the public sector are additional tax and social contribution receipts associated with higher earnings and savings on transfers, i.e. housing benefits and social assistance that the public sector does not have to pay because of higher levels of earnings.

It is important to consider some of the broad **conceptual limitations** on the estimates of financial returns discussed here:

- The data reported are accounting-based values only. The results no doubt differ from econometric estimates that would use the same data on the micro level rather than a lifetime stream of earnings derived from average earnings.
- The approach used here estimates future earnings for individuals with different levels of educational attainment, based on knowledge of how average present gross earnings vary by level of attainment and age. However, the relationship between different levels of educational attainment and earnings may differ in the future. Technological, economic and social changes may all alter how wage levels relate to levels of educational attainment.
- Differences in returns across countries partly reflect different institutional and non-market conditions that bear on earnings, such as institutional conditions that limit flexibility in relative earnings.
- In estimating benefits, the effect of education on the likelihood of finding employment when wanting to work is taken into account. However, this also makes the estimate sensitive to the stage in the economic cycle at which the data are collected. As more highly educated individuals typically have a stronger attachment to the labour market, the value of education generally increases in times of poor economic growth.

The calculations also involve a number of restrictive assumptions needed for international comparability. For 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 wage 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 editions of *Education at a Glance*. In the Czech Republic, Hungary, Japan, the Netherland, Portugal and the United Kingdom, actual earnings are used in calculating foregone earnings, as part-time work is excluded in these earnings data collections.

For the methods employed for calculating the rates of return, please see Annex 3 at *www.oecd.org/edu/eag2011*.

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A9

Table A9.1. [1/2] Private net present value and internal rate of return for an individual obtaining upper secondary or post-secondary non-tertiary education as part of initial education, in equivalent USD (2007 or latest available year)

		Year	Direct cost	Foregone earnings	Total costs	Grosss earnings benefits	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net Present value	Internal rate of return
								MAN					
OECD	Australia	2005	-2 891	-22 661	**-25 553**	114 598	-45 267	0	-1 364	42 065	**110 032**	84 479	14.4%
	Austria	2007	-1 635	-40 820	**-42 456**	256 673	-66 828	-53 151	-8 227	37 919	**166 386**	123 931	12.3%
	Belgium[1]												
	Canada	2007	-2 642	-28 223	**-30 865**	131 999	-40 678	-10 499	0	35 426	**116 248**	85 382	12.2%
	Chile		m	m	**m**	m	m	m	m	m	**m**	m	m
	Czech Republic	2007	-1 870	-25 632	**-27 502**	88 484	-26 424	-20 613	0	76 777	**118 224**	90 722	14.3%
	Denmark	2007	-547	-28 599	**-29 146**	174 294	-72 337	-15 813	-11 720	16 073	**90 497**	61 352	13.3%
	Estonia		m	m	**m**	m	m	m	m	m	**m**	m	m
	Finland	2007	-191	-29 402	**-29 592**	69 256	-27 948	-6 651	-6 392	28 744	**57 009**	27 416	7.5%
	France	2007	-2 284	-28 513	**-30 797**	72 305	-16 559	-14 580	-1 082	35 258	**75 341**	44 544	8.7%
	Germany	2007	-3 435	-33 027	**-36 462**	81 600	-33 742	-34 846	-19 501	80 860	**74 370**	37 908	7.4%
	Greece		m	m	**m**	m	m	m	m	m	**m**	m	m
	Hungary	2007	-814	-17 604	**-18 417**	71 585	-35 211	-18 296	0	36 147	**54 225**	35 808	10.9%
	Iceland		m	m	**m**	m	m	m	m	m	**m**	m	m
	Ireland	2006	-666	-28 309	**-28 975**	140 658	-61 467	-9 941	0	34 915	**104 166**	75 191	9.6%
	Israel		m	m	**m**	m	m	m	m	m	**m**	m	m
	Italy	2006	-884	-37 895	**-38 780**	173 902	-63 557	-17 786	0	17 938	**110 497**	71 717	7.2%
	Japan[2]												
	Korea[3]												
	Luxembourg		m	m	**m**	m	m	m	m	m	**m**	m	m
	Mexico		m	m	**m**	m	m	m	m	m	**m**	m	m
	Netherlands[1]												
	New Zealand	2007	-2 787	-32 043	**-34 830**	145 304	-49 007	-2 097	-2 992	15 872	**107 081**	72 251	9.0%
	Norway	2007	-2 674	-39 641	**-42 315**	219 291	-68 618	-19 139	-4 147	26 179	**153 566**	111 251	13.2%
	Poland	2006	-177	-16 120	**-16 297**	46 352	-6 124	-19 927	0	30 906	**51 207**	34 910	10.6%
	Portugal	2006	-12	-23 445	**-23 456**	212 846	-53 287	-23 133	0	-3 353	**133 074**	109 618	11.5%
	Slovak Republic		m	m	**m**	m	m	m	m	m	**m**	m	m
	Slovenia	2007	-2 176	-18 284	**-20 460**	111 618	-19 595	-28 948	0	19 307	**82 381**	61 921	12.1%
	Spain	2007	-1 348	-13 578	**-14 926**	83 112	-20 353	-5 965	0	11 119	**67 913**	52 987	9.5%
	Sweden	2007	-22	-26 828	**-26 850**	118 530	-38 526	-10 616	-15 802	33 742	**87 328**	60 477	11.7%
	Switzerland		m	m	**m**	m	m	m	m	m	**m**	m	m
	Turkey	2005	-336	-11 218	**-11 554**	63 318	-10 584	-10 115	0	4 017	**46 637**	35 082	9.5%
	United Kingdom	2006	-4 773	-34 026	**-38 799**	236 619	-58 798	-29 668	-3 350	44 978	**189 781**	150 982	13.5%
	United States	2007	-2 872	-23 524	**-26 397**	297 360	-71 888	-25 293	-4 848	32 811	**228 142**	201 745	21.4%
	OECD average		-1 668	-26 638	**-28 306**	138 557	-42 228	-17 956	-3 782	31 319	**105 910**	77 604	11.4%

1. Belgium and the Netherlands are not included in the table because upper secondary education is compulsory.
2. Japan is not included in the table because the data at lower and upper secondary level of education are not broken down.
3. Korea is not included in the table because of data-quality issues at that level.

Source: OECD. See Annex 3 for notes *(www.oecd.org/edu/eag2011)*.

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A9.1. [2/2] **Private net present value and internal rate of return for an individual obtaining upper secondary or post-secondary non-tertiary education as part of initial education, in equivalent USD (2007 or latest available year)**

		Year	Direct cost	Foregone earnings	Total costs	Grosss earnings benefits	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net Present value	Internal rate of return
							WOMAN						
OECD	Australia	2005	-2 891	-23 380	**-26 271**	94 208	-29 950	0	-17 689	23 288	**69 857**	43 586	11.9%
	Austria	2007	-1 635	-39 437	**-41 073**	174 544	-27 749	-36 891	-24 746	24 375	**109 534**	68 461	8.9%
	Belgium[1]												
	Canada	2007	-2 642	-28 852	**-31 494**	131 145	-28 469	-13 553	-719	23 229	**111 632**	80 138	10.7%
	Chile		m	m	**m**	m	m	m	m	m	**m**	m	m
	Czech Republic	2007	-1 870	-22 236	**-24 106**	84 041	-20 163	-18 570	0	65 558	**110 866**	86 760	15.9%
	Denmark	2007	-547	-28 982	**-29 529**	131 336	-49 824	-12 498	0	14 882	**83 896**	54 366	11.1%
	Estonia		m	m	**m**	m	m	m	m	m	**m**	m	m
	Finland	2007	-191	-29 064	**-29 255**	46 963	-14 043	-4 657	-14 652	21 928	**35 538**	6 283	-1.5%
	France	2007	-2 284	-25 279	**-27 564**	57 780	-11 178	-12 193	-2 502	31 655	**63 562**	35 998	7.8%
	Germany	2007	-3 435	-33 213	**-36 648**	109 439	-29 559	-32 877	-35 152	44 706	**56 558**	19 910	5.6%
	Greece		m	m	**m**	m	m	m	m	m	**m**	m	m
	Hungary	2007	-814	-17 157	**-17 971**	73 201	-27 449	-17 656	0	30 554	**58 649**	40 678	10.9%
	Iceland		m	m	**m**	m	m	m	m	m	**m**	m	m
	Ireland	2006	-666	-28 326	**-28 993**	208 109	-25 953	-16 444	0	19 020	**184 733**	155 740	25.4%
	Israel		m	m	**m**	m	m	m	m	m	**m**	m	m
	Italy	2006	-884	-33 025	**-33 909**	137 400	-44 841	-15 224	0	28 616	**105 951**	72 042	8.5%
	Japan[2]												
	Korea[3]												
	Luxembourg		m	m	**m**	m	m	m	m	m	**m**	m	m
	Mexico		m	m	**m**	m	m	m	m	m	**m**	m	m
	Netherlands[1]												
	New Zealand	2007	-2 787	-31 353	**-34 139**	75 316	-17 930	-1 125	-12 048	10 971	**55 183**	21 044	6.3%
	Norway	2007	-2 674	-39 522	**-42 196**	131 887	-36 552	-11 685	-14 003	18 575	**88 222**	46 026	7.4%
	Poland	2006	-177	-13 249	**-13 425**	62 434	-7 066	-22 813	0	26 653	**59 207**	45 781	11.9%
	Portugal	2006	-12	-20 631	**-20 642**	150 215	-31 104	-17 731	0	10 416	**111 796**	91 153	20.8%
	Slovak Republic		m	m	**m**	m	m	m	m	m	**m**	m	m
	Slovenia	2007	-2 176	-18 557	**-20 733**	118 292	-16 877	-28 104	-708	9 009	**81 612**	60 879	11.3%
	Spain	2007	-1 348	-11 938	**-13 286**	114 657	-31 228	-8 554	0	19 656	**94 532**	81 246	13.7%
	Sweden	2007	-22	-26 139	**-26 161**	94 460	-31 299	-9 260	-20 376	38 890	**72 415**	46 253	9.6%
	Switzerland		m	m	**m**	m	m	m	m	m	**m**	m	m
	Turkey	2005	-336	-12 058	**-12 394**	75 879	-8 395	-9 432	0	-12 434	**45 618**	33 223	9.3%
	United Kingdom	2006	-4 773	-34 679	**-39 452**	211 146	-51 120	-25 797	-49 919	31 680	**115 990**	76 538	10.5%
	United States	2007	-2 872	-23 781	**-26 653**	230 500	-49 452	-20 044	-8 040	31 312	**184 276**	157 623	19.6%
	OECD average		-1 668	-25 755	**-27 424**	119 664	-28 105	-15 958	-9 550	24 407	**90 458**	63 035	11.2%

1. Belgium and the Netherlands are not included in the table because upper secondary education is compulsory.
2. Japan is not included in the table because the data at lower and upper secondary level of education are not broken down.
3. Korea is not included in the table because of data-quality issues at that level.

Source: OECD. See Annex 3 for notes *(www.oecd.org/edu/eag2011)*.

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A9.2. [1/2] Public net present value and internal rate of return for an individual obtaining upper secondary or post-secondary non-tertiary education as part of initial education, in equivalent USD (2007 or latest available year)

		Year	Direct cost	Foregone taxes on earnings	Total costs	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net Present value	Internal rate of return
							MAN					
OECD	Australia	2005	-14 757	-4 357	**-19 114**	36 052	0	1 364	9 215	**46 632**	27 518	8.6%
	Austria	2007	-39 507	-9 061	**-48 568**	62 107	46 349	8 227	11 522	**128 205**	79 637	8.7%
	Belgium[1]											
	Canada	2007	-20 114	-2 859	**-22 974**	35 962	8 078	0	7 138	**51 178**	28 204	7.1%
	Chile		m	m	**m**	m	m	m	m	**m**	m	m
	Czech Republic	2007	-18 306	-6 804	**-25 110**	17 500	11 059	0	18 478	**47 037**	21 927	6.7%
	Denmark	2007	-28 705	-12 076	**-40 781**	67 770	13 925	11 720	6 455	**99 870**	59 089	8.7%
	Estonia		m	m	**m**	m	m	m	m	**m**	m	m
	Finland	2007	-19 061	-3 568	**-22 629**	22 243	4 710	6 392	7 646	**40 991**	18 362	7.6%
	France	2007	-29 063	-5 660	**-34 722**	12 887	9 800	1 082	8 452	**32 221**	-2 501	2.7%
	Germany	2007	-23 597	-7 812	**-31 410**	20 790	17 860	19 501	29 938	**88 089**	56 680	15.6%
	Greece		m	m	**m**	m	m	m	m	**m**	m	m
	Hungary	2007	-14 543	-6 026	**-20 569**	29 396	12 189	0	11 922	**53 507**	32 938	8.3%
	Iceland		m	m	**m**	m	m	m	m	**m**	m	m
	Ireland	2006	-20 729	-7 054	**-27 784**	56 783	8 256	0	6 369	**71 408**	43 624	7.1%
	Israel		m	m	**m**	m	m	m	m	**m**	m	m
	Italy	2006	-30 614	-8 568	**-39 181**	59 924	16 143	0	5 277	**81 343**	42 162	5.7%
	Japan[2]											
	Korea[3]											
	Luxembourg		m	m	**m**	m	m	m	m	**m**	m	m
	Mexico		m	m	**m**	m	m	m	m	**m**	m	m
	Netherlands[1]											
	New Zealand	2007	-16 527	-4 015	**-20 542**	45 654	1 891	2 992	3 559	**54 096**	33 553	8.0%
	Norway	2007	-34 470	-10 723	**-45 193**	63 445	17 112	4 147	7 199	**91 904**	46 711	7.7%
	Poland	2006	-12 824	-7 216	**-20 040**	4 246	11 991	0	9 813	**26 050**	6 010	4.4%
	Portugal	2006	-19 937	-3 854	**-23 791**	53 798	23 500	0	-879	**76 420**	52 629	7.7%
	Slovak Republic		m	m	**m**	m	m	m	m	**m**	m	m
	Slovenia	2007	-20 398	-5 164	**-25 562**	17 749	24 705	0	6 089	**48 543**	22 981	6.2%
	Spain	2007	-17 532	-1 048	**-18 580**	19 077	5 263	0	1 977	**26 317**	7 738	4.3%
	Sweden	2007	-26 133	-7 755	**-33 888**	31 370	8 273	15 802	9 500	**64 944**	31 056	9.7%
	Switzerland		m	m	**m**	m	m	m	m	**m**	m	m
	Turkey	2005	-4 776	-4 551	**-9 327**	9 997	9 514	0	1 188	**20 699**	11 371	6.4%
	United Kingdom	2006	-15 838	-3 817	**-19 655**	51 838	25 919	3 350	10 709	**91 815**	72 161	10.1%
	United States	2007	-30 470	-1 063	**-31 533**	66 801	22 796	4 848	7 585	**102 029**	70 497	10.4%
	OECD average		-21 805	-5 860	**-27 664**	37 399	14 254	3 782	8 531	**63 967**	36 302	7.7%

1. Belgium and the Netherlands are not included in the table because upper secondary education is compulsory.
2. Japan is not included in the table because the data at lower and upper secondary level of education are not broken down.
3. Korea is not included in the table because of data-quality issues at that level.

Source: OECD. See Annex 3 for notes *(www.oecd.org/edu/eag2011)*.

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A9.2. [2/2] **Public net present value and internal rate of return for an individual obtaining upper secondary or post-secondary non-tertiary education as part of initial education, in equivalent USD (2007 or latest available year)**

		Year	Direct cost	Foregone taxes on earnings	Total costs	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net Present value	Internal rate of return
		WOMAN										
OECD	Australia	2005	-14 757	-4 495	**-19 252**	25 858	0	17 689	4 092	**47 639**	28 387	17.2%
	Austria	2007	-39 507	-8 754	**-48 261**	27 007	32 530	24 746	5 103	**89 385**	41 124	7.1%
	Belgium[1]											
	Canada	2007	-20 114	-2 923	**-23 037**	26 822	12 040	719	3 161	**42 742**	19 705	5.8%
	Chile		m	m	**m**	m	m	m	m	**m**	m	m
	Czech Republic	2007	-18 306	-5 395	**-23 701**	13 867	10 427	0	14 439	**38 733**	15 032	5.9%
	Denmark	2007	-28 705	-12 238	**-40 943**	46 022	10 562	0	5 738	**62 322**	21 379	5.7%
	Estonia		m	m	**m**	m	m	m	m	**m**	m	m
	Finland	2007	-19 061	-3 527	**-22 588**	10 562	3 188	14 652	4 951	**33 353**	10 765	6.9%
	France	2007	-29 063	-5 018	**-34 081**	8 626	7 905	2 502	6 841	**25 873**	-8 207	1.8%
	Germany	2007	-23 597	-7 856	**-31 454**	25 731	23 521	35 152	13 184	**97 588**	66 134	12.5%
	Greece		m	m	**m**	m	m	m	m	**m**	m	m
	Hungary	2007	-14 543	-5 838	**-20 381**	23 484	12 493	0	9 129	**45 106**	24 725	6.9%
	Iceland		m	m	**m**	m	m	m	m	**m**	m	m
	Ireland	2006	-20 729	-7 059	**-27 788**	25 089	15 882	0	1 426	**42 396**	14 608	5.2%
	Israel		m	m	**m**	m	m	m	m	**m**	m	m
	Italy	2006	-30 614	-7 466	**-38 080**	40 842	12 613	0	6 610	**60 065**	21 984	4.8%
	Japan[2]											
	Korea[3]											
	Luxembourg		m	m	**m**	m	m	m	m	**m**	m	m
	Mexico		m	m	**m**	m	m	m	m	**m**	m	m
	Netherlands[1]		cf notes									
	New Zealand	2007	-16 527	-3 929	**-20 456**	15 897	984	12 048	2 175	**31 104**	10 648	5.7%
	Norway	2007	-34 470	-10 691	**-45 161**	33 825	10 251	14 003	4 161	**62 240**	17 079	5.3%
	Poland	2006	-12 824	-5 684	**-18 508**	5 661	15 984	0	8 235	**29 879**	11 371	5.3%
	Portugal	2006	-19 937	-2 842	**-22 779**	30 147	16 590	0	2 098	**48 835**	26 056	6.1%
	Slovak Republic		m	m	**m**	m	m	m	m	**m**	m	m
	Slovenia	2007	-20 398	-5 241	**-25 639**	16 274	26 130	708	2 577	**45 690**	20 050	5.8%
	Spain	2007	-17 532	-921	**-18 453**	29 970	7 315	0	2 496	**39 781**	21 328	6.0%
	Sweden	2007	-26 133	-7 556	**-33 689**	23 870	6 567	20 376	10 122	**60 934**	27 246	9.2%
	Switzerland		m	m	**m**	m	m	m	m	**m**	m	m
	Turkey	2005	-4 776	-4 892	**-9 668**	10 025	11 264	0	-3 463	**17 827**	8 159	5.8%
	United Kingdom	2006	-15 838	1 057	**-14 781**	46 747	23 374	49 919	6 796	**126 836**	112 055	21.9%
	United States	2007	-30 470	-1 074	**-31 544**	45 414	17 671	8 040	6 411	**77 536**	45 992	9.0%
	OECD average		-21 805	-5 350	**-27 155**	25 321	13 204	9 550	5 537	**53 613**	26 458	7.6%

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Table A9.3. Private net present value and internal rate of return for an individual obtaining tertiary education as part of initial education, in equivalent USD (2007 or latest available year)

		Year	Direct cost	Foregone earnings	Grosss earnings benefits	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Grants effect	Net Present value	Internal rate of return
							MAN					
OECD	Australia	2005	-14 426	-36 420	255 043	-104 749	0	0	1 067	6	100 520	9.1%
OECD	Austria	2007	-8 806	-46 643	371 437	-115 267	-45 311	0	9 139	8 973	173 522	10.4%
OECD	Belgium	2005	-2 133	-30 842	330 069	-146 546	-50 240	0	14 294	862	115 464	11.9%
OECD	Canada	2007	-18 549	-31 926	315 476	-100 857	-7 420	0	17 844	1 103	175 670	11.9%
OECD	Chile		m	m	m	m	m	m	m	m	m	m
OECD	Czech Republic	2007	-2 844	-29 602	366 844	-69 749	-35 043	0	10 843		240 449	17.6%
OECD	Denmark	2007	-2 330	-42 645	220 552	-114 832	-16 666	-5 084	-8 731	25 682	55 946	9.4%
OECD	Estonia		m	m	m	m	m	m	m	m	m	m
OECD	Finland	2007	-1 543	-54 099	312 689	-127 081	-22 749	0	19 569	8 730	135 515	11.1%
OECD	France	2007	-5 202	-44 540	290 891	-65 381	-38 676	0	3 938	3 103	144 133	10.7%
OECD	Germany	2007	-5 387	-51 965	362 747	-142 711	-73 358	0	53 169	5 274	147 769	11.5%
OECD	Greece		m	m	m	m	m	m	m	m	m	m
OECD	Hungary	2007	-3 873	-22 318	421 782	-130 630	-59 816	0	23 754	1 199	230 098	20.0%
OECD	Iceland		m	m	m	m	m	m	m	m	m	m
OECD	Ireland	2006	-3 759	-39 460	406 325	-110 604	-10 170	0	8 058	3 556	253 947	13.9%
OECD	Israel		m	m	m	m	m	m	m	m	m	m
OECD	Italy	2006	-6 977	-48 756	485 212	-92 371	-24 098	0	-4 712	3 668	311 966	11.8%
OECD	Japan	2007	-37 215	-66 750	326 614	-64 523	-36 039	0	20 931		143 018	7.4%
OECD	Korea	2007	-19 846	-32 639	438 338	-77 162	-19 979	0	12 156		300 868	13.6%
OECD	Luxembourg		m	m	m	m	m	m	m	m	m	m
OECD	Mexico		m	m	m	m	m	m	m	m	m	m
OECD	Netherlands	2006	-12 351	-80 305	360 261	-143 665	-35 935	0	8 808	16 115	112 928	7.4%
OECD	New Zealand	2007	-9 132	-37 956	193 122	-67 773	-2 465	-94	-2 868	1 623	74 457	8.9%
OECD	Norway	2007	-997	-49 289	252 817	-93 575	-19 454	0	-3 407	6 226	92 320	7.3%
OECD	Poland	2006	-4 547	-19 838	308 019	-35 830	-79 920	0	45 499	1 742	215 125	21.4%
OECD	Portugal	2006	-5 903	-24 146	484 640	-77 432	-28 586	0	25 278		373 851	18.5%
OECD	Slovak Republic		m	m	m	m	m	m	m	m	m	m
OECD	Slovenia	2007	-5 895	-20 705	430 880	-97 103	-84 520	0	2 805	200	225 663	19.1%
OECD	Spain	2007	-8 074	-31 483	188 521	-49 829	-12 490	0	8 674		95 320	9.0%
OECD	Sweden	2007	-4 362	-50 741	204 867	-89 279	-8 060	0	1 417	8 639	62 481	7.1%
OECD	Switzerland		m	m	m	m	m	m	m	m	m	m
OECD	Turkey	2005	-1 061	-9 402	106 985	-18 682	-16 424	0	2 761		64 177	19.3%
OECD	United Kingdom	2006	-13 536	-70 193	410 276	-113 696	-24 502	0	17 604	1 701	207 653	11.2%
OECD	United States	2007	-69 907	-39 313	618 300	-180 894	-46 747	0	42 369		323 808	11.3%
	OECD average		-10 746	-40 479	338 508	-97 209	-31 947	-207	13 210	5 467	175 067	12.4%
							WOMAN					
OECD	Australia	2005	-14 426	-36 370	219 590	-72 697	0	0	14 976	6	111 078	11.3%
OECD	Austria	2007	-8 806	-46 444	286 848	-80 191	-52 581	0	4 322	8 973	112 121	9.8%
OECD	Belgium	2005	-2 133	-29 666	255 955	-102 599	-56 606	0	36 372	862	102 183	14.5%
OECD	Canada	2007	-18 549	-32 640	221 289	-57 157	-17 636	0	10 678	1 103	107 088	11.1%
OECD	Chile		m	m	m	m	m	m	m	m	m	m
OECD	Czech Republic	2007	-2 844	-25 441	221 063	-52 199	-30 754	0	24 704		134 529	16.0%
OECD	Denmark	2007	-2 330	-42 572	134 157	-49 751	-10 916	-4 666	1 950	25 682	51 555	11.4%
OECD	Estonia		m	m	m	m	m	m	m	m	m	m
OECD	Finland	2007	-1 543	-53 726	186 268	-66 033	-14 136	-2 625	19 460	8 730	76 394	9.0%
OECD	France	2007	-5 202	-42 461	190 775	-39 009	-28 156	0	15 155	3 103	94 206	9.9%
OECD	Germany	2007	-5 387	-52 667	243 123	-75 011	-56 960	-306	26 665	5 274	84 732	8.4%
OECD	Greece		m	m	m	m	m	m	m	m	m	m
OECD	Hungary	2007	-3 873	-20 252	229 315	-96 706	-42 183	0	18 694	1 199	86 195	14.3%
OECD	Iceland		m	m	m	m	m	m	m	m	m	m
OECD	Ireland	2007	-3 759	-39 374	373 640	-114 344	-28 582	0	11 528	3 556	202 664	17.7%
OECD	Israel		m	m	m	m	m	m	m	m	m	m
OECD	Italy	2006	-6 977	-45 725	181 641	-62 065	-16 963	0	1 722	3 668	55 301	7.0%
OECD	Japan	2007	-37 215	-49 265	231 306	-20 848	-29 117	0	9 951		104 812	7.8%
OECD	Korea	2007	-19 846	-33 982	295 653	-31 450	-21 324	-6 002	7 029		190 077	7.8%
OECD	Luxembourg		m	m	m	m	m	m	m	m	m	m
OECD	Mexico		m	m	m	m	m	m	m	m	m	m
OECD	Netherlands	2006	-12 351	-77 857	249 090	-83 666	-42 675	0	14 120	16 115	62 777	6.2%
OECD	New Zealand	2007	-9 132	-37 896	124 606	-31 672	-1 645	-4 563	2 239	1 623	43 560	7.3%
OECD	Norway	2007	-997	-49 574	194 625	-55 174	-15 461	0	2 591	6 226	82 235	9.0%
OECD	Poland	2006	-4 547	-15 268	182 337	-20 299	-58 532	0	44 285	1 742	129 717	20.4%
OECD	Portugal	2006	-5 903	-20 483	355 880	-92 120	-36 253	0	9 848		210 968	18.4%
OECD	Slovak Republic		m	m	m	m	m	m	m	m	m	m
OECD	Slovenia	2007	-5 895	-20 090	319 493	-74 631	-74 593	0	22 535	200	167 020	17.7%
OECD	Spain	2007	-8 074	-29 446	191 188	-50 145	-13 510	0	22 002		112 016	11.3%
OECD	Sweden	2007	-4 362	-50 462	113 844	-33 618	-8 648	-107	9 969	8 639	35 256	5.8%
OECD	Switzerland		m	m	m	m	m	m	m	m	m	m
OECD	Turkey	2005	-1 061	-8 185	116 530	-21 267	-19 627	0	14 075		80 466	19.2%
OECD	United Kingdom	2006	-13 536	-68 853	331 461	-76 300	-37 754	-343	19 056	1 701	155 432	8.8%
OECD	United States	2007	-69 907	-40 273	372 672	-93 695	-29 957	0	18 952		157 793	8.6%
	OECD average		-10 746	-38 759	232 894	-62 106	-29 783	-744	15 315	5 467	110 007	11.5%

Source: OECD. See Annex 3 for notes *(www.oecd.org/edu/eag2011).*

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A9.4. Public net present value and internal rate of return for an individual obtaining tertiary education as part of initial education, in equivalent USD (2007 or latest available year)

		Year	Direct cost	Foregone taxes on earnings	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Grants effect	Net Present value	Internal rate of return
						MAN					
OECD	Australia	2005	-13 209	-7 002	104 353	0	0	396	-6	84 532	12.4%
	Austria	2007	-51 546	-10 354	113 222	43 918	0	3 438	-8 973	89 705	6.8%
	Belgium	2005	-20 552	-8 132	142 138	48 240	0	6 407	-862	167 241	14.9%
	Canada	2007	-24 166	-3 234	97 358	6 425	0	4 494	-1 103	79 774	10.5%
	Chile		m	m	m	m	m	m	m	m	m
	Czech Republic	2007	-14 749	-8 735	68 078	33 885	0	2 828		81 307	12.9%
	Denmark	2007	-64 272	-18 007	117 724	17 609	5 084	-3 835	-25 682	28 621	4.0%
	Estonia		m	m	m	m	m	m	m	m	m
	Finland	2007	-34 358	-6 565	121 751	21 420	0	6 660	-8 730	100 177	8.9%
	France	2007	-28 412	-8 841	64 930	38 135	0	992	-3 103	63 701	7.5%
	Germany	2007	-29 854	-12 292	130 173	62 855	0	23 041	-5 274	168 649	12.6%
	Greece		m	m	m	m	m	m	m	m	m
	Hungary	2007	-13 612	-8 763	124 793	56 338	0	9 315	-1 199	166 872	21.8%
	Iceland		m	m	m	m	m	m	m	m	m
	Ireland	2006	-21 467	-9 833	109 079	9 816	0	1 878	-3 556	85 917	10.2%
	Israel		m	m	m	m	m	m	m	m	m
	Italy	2006	-18 847	-11 023	93 319	24 717	0	-1 567	-3 668	82 932	10.0%
	Japan	2007	-17 897	-15 254	62 285	33 612	0	4 665		67 411	8.4%
	Korea	2007	-5 185	-2 923	76 050	19 188	0	1 903		89 034	17.9%
	Luxembourg		m	m	m	m	m	m	m	m	m
	Mexico		m	m	m	m	m	m	m	m	m
	Netherlands	2006	-34 104	-34 351	141 871	34 115	0	3 613	-16 115	95 030	6.5%
	New Zealand	2007	-17 470	-4 756	68 519	2 502	94	-782	-1 623	46 482	9.3%
	Norway	2007	-31 963	-13 333	94 347	19 719	0	-1 036	-6 226	61 507	6.1%
	Poland	2006	-10 791	-9 092	32 030	69 015	0	14 706	-1 742	94 125	14.8%
	Portugal	2006	-11 848	-4 706	73 993	27 167	0	4 858		89 464	18.1%
	Slovak Republic		m	m	m	m	m	m	m	m	m
	Slovenia	2007	-19 911	-5 848	96 667	83 921	0	1 035	-200	155 664	16.3%
	Spain	2007	-30 308	-2 429	48 395	11 942	0	1 982		29 582	5.8%
	Sweden	2007	-36 490	-14 668	88 854	7 979	0	507	-8 639	37 542	5.1%
	Switzerland		m	m	m	m	m	m	m	m	m
	Turkey	2005	-9 567	-3 814	18 209	16 010	0	886		21 724	9.3%
	United Kingdom	2006	-24 919	-16 257	110 230	23 095	0	4 873	-1 701	95 322	10.4%
	United States	2007	-32 281	-1 776	171 718	43 611	0	12 312		193 584	15.7%
	OECD average		-24 711	-9 680	94 803	30 209	207	4 143	-5 467	91 036	11.1%
						WOMAN					
OECD	Australia	2005	-13 209	-6 993	69 331	0	0	3 366	-6	52 490	12.5%
	Austria	2007	-51 546	-10 309	79 460	51 803	0	1 509	-8 973	61 943	6.0%
	Belgium	2005	-20 552	-7 822	93 938	51 660	0	13 607	-862	129 970	17.5%
	Canada	2007	-24 166	-3 307	55 608	16 881	0	2 304	-1 103	46 218	9.2%
	Chile		m	m	m	m	m	m	m	m	m
	Czech Republic	2007	-14 749	-7 011	48 602	27 676	0	6 674		61 193	11.6%
	Denmark	2007	-64 272	-17 976	49 161	10 708	4 666	798	-25 682	-42 598	0.8%
	Estonia		m	m	m	m	m	m	m	m	m
	Finland	2007	-34 358	-6 520	61 806	12 819	2 625	5 545	-8 730	33 185	5.7%
	France	2007	-28 412	-8 428	37 259	26 098	0	3 808	-3 103	27 220	5.7%
	Germany	2007	-29 854	-12 458	70 549	51 359	306	10 063	-5 274	84 692	8.9%
	Greece		m	m	m	m	m	m	m	m	m
	Hungary	2007	-13 612	-7 539	91 824	39 014	0	8 052	-1 199	116 539	18.2%
	Iceland		m	m	m	m	m	m	m	m	m
	Ireland	2006	-21 467	-9 812	112 497	27 972	0	2 457	-3 556	108 091	12.4%
	Israel		m	m	m	m	m	m	m	m	m
	Italy	2006	-18 847	-10 338	61 193	16 803	0	1 033	-3 668	46 176	7.6%
	Japan	2007	-17 897	-10 654	20 218	27 924	0	1 822		21 414	6.2%
	Korea	2007	-5 185	-3 043	31 111	20 817	6 002	847		50 549	9.2%
	Luxembourg		m	m	m	m	m	m	m	m	m
	Mexico		m	m	m	m	m	m	m	m	m
	Netherlands	2006	-34 104	-26 483	81 979	39 014	0	5 348	-16 115	49 639	5.6%
	New Zealand	2007	-17 470	-4 749	31 220	1 616	4 563	480	-1 623	14 038	6.1%
	Norway	2007	-31 963	-13 410	54 712	15 260	0	663	-6 226	19 036	4.6%
	Poland	2006	-10 791	-6 870	17 158	47 139	0	14 534	-1 742	59 427	12.5%
	Portugal	2006	-11 848	-3 689	89 669	35 321	0	3 385		112 837	17.6%
	Slovak Republic		m	m	m	m	m	m	m	m	m
	Slovenia	2007	-19 911	-5 674	70 951	69 680	0	8 594	-200	123 439	13.4%
	Spain	2007	-30 308	-2 272	46 995	12 120	0	4 540		31 075	6.5%
	Sweden	2007	-36 490	-14 587	31 406	7 955	107	2 905	-8 639	-17 344	1.5%
	Switzerland		m	m	m	m	m	m	m	m	m
	Turkey	2005	-9 567	-3 320	19 194	17 528	0	4 171		28 006	9.1%
	United Kingdom	2006	-24 919	-8 719	73 039	36 048	343	4 967	-1 701	79 058	9.5%
	United States	2007	-32 281	-1 820	90 324	28 513	0	4 814		89 551	11.4%
	OECD average		-24 711	-8 552	59 568	27 669	744	4 651	-5 467	55 434	9.2%

Source: OECD. See Annex 3 for notes *(www.oecd.org/edu/eag2011)*.

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