Part II: Data details and cross-national differences

Education / data on education financing and the educational situation of young people

Public and private spending on education

European countries spend an average 5.72% of GDP on education (Figure 1). But a considerable difference exists between Romania’s 3.5% and Denmark’s 9%. As a whole, the Nordic countries spend the most on education and Eastern Europe countries the least.

Figure 1. Public spending in education as a % of GDP.

Total public spending in education, as share of annual GDP, 2010 (ed_sptot)

“Private” spending refers to all private-origin resources devoted to the education system, including household spending (and also including the public subsidies households may receive). This “private” expenditure is very high in the USA and UK, at over 2% of GDP (Figure 2) compared with an average 0.7%. Private expenditure in Norway is just 0.10% of GDP. Private spending is lower than average in the rest of the Nordic countries and several countries in Central and Southern Europe.

Source: OECD Education database.
Figure 2. Private spending on education as a % of GDP.

Total private spending in education as share of annual GDP, 2010 (ed_sppriv)

Source: OECD Education database.

Figure 3 shows total public spending per student to estimate the level of public spending in tertiary education per student. The USA spends over US$21,000 in tertiary education per student every year, significantly higher than in other countries. Spending is also high in the Nordic countries, the Netherlands and the UK, at an average US$9,485 per student. The figure is much lower in Central, Southern and Eastern European countries, for example at less than US$3,000 in Romania.

Figure 3. Public spending in tertiary education per student.

Total public spending in tertiary education per student, 2010 (ed_ypster)

Source: OECD Education database.
Private spending on education rises in step with public spending on education (Figure 4) but the correlation is not statistically significant, as some countries buck the trend. In the Nordic countries, public spending is much higher and the difference with private spending considerable. Public financing in the USA and the UK is the same as that in most countries, but private spending is significantly higher, with households as a whole paying more on education than the state does.

Figure 4. Public and private spending in education.

Source: OECD Education database.
Annual spending in tertiary education per student rises in line with the increase in private spending on education (Figure 5). Two groups of countries stand out in particular: those in Eastern, Central and Southern Europe along with Iceland, with relatively low annual public spending and higher private spending; and the Nordic countries, together with France and Germany, where higher public spending is predominant. The USA and the UK do not fit into either group, with annual public spending practically the same as annual private spending.

Figure 5. Annual public spending in tertiary education per student and private spending on education.

Source: OECD Education database.
There is a strong connection between annual spending in tertiary education per student and total public spending in education (Figure 6), but some countries deviate from the norm. In the USA for example, annual spending in tertiary education per student is higher than the level of overall spending in education would lead to believe. The amount of spending per student in Denmark is relatively low given the total resources devoted to education in the country, probably because of the amount of spending on young children and pre-teenagers.

**Figure 6.** Annual public spending in tertiary education per student is higher in countries with overall higher public spending in education.

![Graph showing the relationship between annual public spending in tertiary education per student and total public spending in education.](image_url)

Source: OECD Education database.
Grants, tuition fees and household spending

The percentage of grant-holding students varies considerably. All students qualify in Denmark, Finland and Malta, where grants are awarded on a universal basis (Figure 7). In contrast, there is no grant system in Iceland, and grants are awarded on a highly selective basis to an average of just 30% of students. Overall, grants are awarded more frequently in the Nordic countries and the UK and less frequently in the countries of Southern, Central and Eastern Europe.

Figure 7. Percentage of students receiving public grants, 2013-2014

Source: National Student Fee and Support System, European Commission.
Households spend an average 1.16% of their available income on education (Figure 8). Households in some countries in Southern and Eastern Europe, as well as Ireland and the UK, have a higher education budget, with Cyprus and Greece leading the way at 2.60% of available income. The proportion of household income devoted to education is much lower in Northern European countries and some Eastern European countries; in Sweden, spending on education accounts for just 0.30% of overall household consumption.

*Figure 8. Share of household consumption.*

Share of households consumption, 2011 (ed_hhdsp)

Source: Eurostat – Household Budget Surveys.
In Europe, 52.13% of students pay tuition fees (Figure 9). That average conceals strong contrasts, particularly between countries in Central and Southern Europe as well as Germany, Iceland, Switzerland and the UK, which impose tuition fees on all students, and the Nordic countries and Austria, Cyprus, Greece and Malta, where no student in tertiary education – excluding particular schools – pays tuition fees.

Figure 9. Percentage of tertiary students paying tuition fees, 2013-2014.

Source: National Student Fee and Support System, European Commission.
The share of household income spent on education is higher where the number of students awarded public grants is lower (Figure 10). Some countries deviate from the general trend. For example, the Nordic countries and Malta stand out with high rates of young people benefitting from public grants despite having household spending rates comparable with those of other countries. Cyprus and Greece also stand apart with very low percentages of grant-holding students and high household spending on education.

Figure 10. Household spending on education and the percentage of grant-holding students.

Source: National Student Fee and Support System, European Commission.
There is no strict connection between the share of income available to households for education and the percentage of students paying tuition fees (Figure 11). The countries in Central and Southern Europe together with Germany and the UK have a high percentage of students paying tuition fees with moderately high household spending. In contrast, the Nordic countries along with Estonia, Austria and Malta stand out from other countries by the absence of tuition fees and from low to moderate household spending on education. A somewhat indistinct group of countries from Central and Eastern Europe has an average share of fee-paying young people and household spending.

*Figure 11. Household spending on education and the percentage of students paying tuition fees.*

However, a negative relationship exists between the percentage of young people receiving grants and the percentage of young people paying tuition fees (Figure 12). Several countries deviate from the trend, particularly the Nordic countries and a few countries in Southern and Eastern Europe, where students in the general education system do not pay tuition fees. Percentages of grant-holding students vary between the universal awarding of grants in Denmark and Finland combined with the near absence of tuition fees, while in Southern and Eastern European countries relatively few grants are awarded yet a large majority of students are required to pay tuition fees.

**Figure 12. Percentage of grant-holding students and the share of students paying tuition fees.**

Source: National Student Fee and Support System, European Commission.
Tertiary education and employment

In Europe, an average 49.7% of 20-34 year-olds are graduates of tertiary education (Figure 13). Cyprus leads the rankings, with 83.1%. Ireland, the UK, France, Belgium, Lithuania and Luxembourg have above average rates. As a whole, the countries in Southern and Eastern Europe have lower than average rates, with last place going to Italy, where just 29% of 20-34 year-olds have a degree in tertiary education.

Figure 13. Percentage of people with a tertiary degree, 2012

Source: OECD Education Database.
A considerable minority of students in 2011 said they held a job during the school year. On average, 13.2% of 15-29 year-olds work full time or part time (Figure 14). The average conceals significant differences between countries where at least one-quarter of students said they had a job or were looking for one actively (the Netherlands, Switzerland, Iceland, Australia, Germany and Austria) and those where it remains rare for students to have jobs (countries in Southern and Eastern Europe).

*Figure 14. Percentage of 15-29 year-olds in education by work status, 2011.*

Source: OECD Education Database.
No clear relationship emerges between the percentage of students with jobs and students with grants (Figure 15). Students in Central Europe and Iceland work more than those in Southern and Eastern Europe, while the percentage of students with grants is similar in all those territories. Norway, Sweden and the UK, and Denmark and Finland in particular, stand out with the highest rates of grant-holding students.

Figure 15. Percentage of students with grants and students with jobs.

Source: OECD Education Database and National Student Fee and Support System, European Commission.
The rate of students in employment is lower where the share of household income devoted to education is higher (Figure 16). Some countries stray from this general rule, among them Denmark and the Netherlands. In these countries, students in employment outnumber those in countries where household spending is of an equivalent amount. A group of countries in Central and Southern Europe can be identified with relatively high household spending and few students in employment.

**Figure 16. Household spending on education and the percentage of students in employment.**

![Graph showing the relationship between household spending on education and the percentage of students in employment](source: OECD Education Database and Eurostat's Household Budget Surveys.)

Source: OECD Education Database and Eurostat's Household Budget Surveys.
No strong relationship has been observed between a high number of students with grants and a high number of students without jobs (Figure 17). Countries with comparable rates of students with grants have very different rates of students with jobs. The number of students without jobs is much lower in Austria, Switzerland, Turkey and Iceland than in the countries of Southern Central and Eastern Europe with the same number of grant-holding students.

Figure 17. Percentage of grant-holding students and students without jobs.

Source: OECD Education Database and Eurostat’s Household Budget Surveys.
The positive relationship between the number of students receiving grants and the percentage of 20-24 year-olds with degrees in tertiary education also shows disparities (Figure 18). An initial group of countries comprising countries in Eastern, Central and Southern Europe has a low rate of grant-holding students and a rather low number of graduates. Meanwhile, the Nordic countries, Cyprus, Malta, the UK, France and Belgium have relatively more graduates and more grant-holding students. Austria, Germany and Denmark are home to a high number of grant-holding students and a low number of 20-24 year-olds with tertiary degrees.

Figure 18. Proportion of grant-holding students and 20-24 year-olds with tertiary degrees.

\[ y = 0.0005x + 8.6988 \]

\[ R^2 = 0.0746 \]

Source: OECD Education Database and Eurostat’s Household Budget Surveys.
Major differences are to be found when examining whether a relationship exists between the proportion of students paying tuition fees when entering tertiary education and the proportion of students in employment (Figure 19). In the Nordic countries, Austria and Greece, no student pays tuition fees and the rate of students in employment is extremely diverse in these countries. In contrast, all the students in Central European countries and the UK pay tuition fees but the share of students in the job market is once again highly scattered. Not all students in Ireland, France and Spain are obliged to pay tuition fees but few students work, while in Hungary no students are in employment.

**Figure 19. Percentage of students paying tuition fees and students in employment.**
Students as a majority obtain their first tertiary degree in general subjects, apart from in Belgium, where graduates in technical subjects outnumber those in general subjects (Figure 20). Australia and New Zealand stand out with comparatively high rates of degrees in both areas.

Figure 20. Percentage of first degree graduates, 2009 (1).

(ter_grad)

(1) Missing countries for tertiary type-B: Poland, Netherlands, Finland, Italy, Germany, Switzerland.

Tertiary-type A education: Largely theory-based programmes designed to provide sufficient qualifications for entry to advanced research programmes and professions with high skill requirements, such as medicine, dentistry and architecture. Duration at least 3 years full-time, though usually 4 or more years. These programmes are not exclusively offered at universities; and not all programmes nationally recognised as university programmes fulfil the criteria to be classified as tertiary-type A. Tertiary-type A programmes include second-degree programmes, such as the American master’s degree.

Tertiary-type B education: Programmes are typically shorter than those of tertiary-type A and focus on practical, technical or occupational skills for direct entry into the labour market, although some theoretical foundations may be covered in the respective programmes. They have a minimum duration of two years full-time equivalent at the tertiary level.

Source: OECD Education Database.
**Young people Neither in Education nor in Employment**

A sizeable minority of young people leave the education system but do not go on to find a job. This is particularly true among 25-29 year-olds (Figure 21). The proportion of young people in this case varies significantly between countries. The countries of Southern and Central Europe have relatively high rates of NEETs (not in education, employment or training), with a maximum of 31% of 20-24 year-olds in this situation in Greece, and 37.6% of 25-29 year-olds. NEET rates are much lower in the Nordic countries, Western and Central European countries (including Germany, Austria and the Netherlands) and Malta. In the Netherlands, the rate is 6.4% for 20-24 year-olds and 9.9% for 25-29 year-olds.

*Figure 21 Percentage of young people not in education, employment or training (NEETs), 2012.*

Source: Eurostat.
Data on the job market and professional integration aid

The transition from education to employment

The transition period is longer for young women having left school before tertiary education than those obtaining a degree in tertiary education (Figure 22). The difference between those with modest educational qualifications and those with degrees in tertiary education is particularly marked in Slovenia, where the transition period is 7.8 months longer for those with modest qualifications, and in countries in Southern and Eastern Europe. In contrast, the professional integration of young people is faster in Northern European countries and the Baltic states, where the difference in educational qualifications is also less emphatic. The period between the completion of education and initial employment is short in the Netherlands, at an average 2.2 months. Paradoxically, in Italy and Portugal, the professional integration of the most educated women appears to be longer on average than those with a degree equivalent to the ISCED 0-4 level.

Figure 22. Average time between end of studies and first job for 18- to 34-year-old women (1), 2009

Duration in months (trans_ed_wk3f/trans_ed_wk3sf)

Source: Eurostat.

(1) : For young women completing their education a maximum 3 years before 2009.
(2) : ISCED 0-4: Pre-primary, primary, secondary and post-secondary non-tertiary.
ISCED 3-6: Higher secondary education, second cycle, post-secondary non-tertiary, first and secondary cycle of tertiary education.

Source: Eurostat.
Differences among young men are similar to those among young women (Figure 23). The transition from education to employment is longer overall in Southern and Eastern European countries, lasting nearly six months longer in Greece than in Iceland. In most countries, this period is longer on average for women than for men. This difference is particularly acute in Slovenia, whereas in France no notable differences are observed.

Figure 23. Average time between end of studies and first job for 18- to 34-year-old men (1), 2009

*Duration in months (trans_ed_wk3m/trans_ed_wk3sm)*

(1) : For young men completing their education no more than three years before 2009.
(2) : ISCED 0-4: Pre-primary, primary, secondary and post-secondary non-tertiary.
ISCED 3-6: Higher secondary education, second cycle, post-secondary non-tertiary, first and secondary cycle of tertiary education.
Young people in employment policy programmes

An average 2.8% of 20-24 year-olds in Europe attend subsidized vocational training courses to help them find employment (Figure 24). The proportion of 20-24 year-olds attending such courses is particularly high in Austria, France and Germany.

*Figure 24. Percentage of 20-24 year-olds participating in vocational training*

![Percentage of 20-24 year-olds participating in vocational training](rat_voclmt25)


Employment incentive policies for 20-24 year-olds generally cover a small percentage of the population, with no more than 4.4% of this age group benefiting from such policies in Portugal (Figure 25).
On average, just 0.5% of 20-24 year-olds benefit from public employment (direct job creation), but the share is considerably higher in Hungary, Belgium and France (Figure 26).

An average 0.47% of 20-24 year-olds benefit from supported employment, but the percentage is much higher in the Netherlands, Austria, Finland and Norway (Figure 27).
A very low percentage of young people benefit from start-up incentives, the rate being higher in Slovakia (at around 1.20% of 20-24 year-olds) than in the other countries.

Overall, employment integration programmes, all categories combined, cover a large minority of 20-24 year-olds, at over 10% in France, Italy, Austria and Portugal (Figure 29). These programmes are thinnest on the ground in Central and Eastern Europe, and the rate is particularly low in Bulgaria, where just 0.5% of young people benefit from such services.
Figure 29. Percentage of 20-24 year-olds benefiting from public policies on the labour market\(^{(1)}\).

\((\text{rat_pollmt25})\)

Unemployment compensation and social assistance programmes provide income to a minority of unemployed 20-24 year-olds, at 4.7% for Europe 30 countries (Figure 30). Ireland stands out sharply from the other countries with over a quarter of the young unemployed benefiting from financial support. Coverage is relatively strong in Belgium, France and Sweden but practically non-existent in Eastern Europe with the exception of Hungary.

\(^{(1)}\) Programmes 2 to 7: vocational training, supported employment and rehabilitation, direct job creation and aid for business creation.

As can be expected, the proportion of 20-24 year-olds benefiting from employment assistance policies is higher the longer the period between the completion of education and the first job (Figure 31).

Figure 31. Percentage of 20-24 year-olds benefiting from public job-market integration policies and the average period between completion of education and initial employment.

(1): Concerning policies on vocational training, employment incentives, sheltered and supported employment and rehabilitation, direct job creation and aid for business creation.
(2): For 18-34 year-olds having left the education system a maximum 3 years before 2009.
However, given the dispersion of the countries, there seems to be no simple linear relationship between the period between the completion of education and initial employment and the percentage of young people receiving income for being out of work (Figure 32). On the contrary, education-employment transition periods vary considerably for comparable rates of unemployment compensation or social assistance coverage.

Figure 32. Average time between the completion of education and initial employment and the percentage of 20-24 year-olds receiving financial aid for being out of work.

(1): Income support and maintenance programme for unemployed individuals. Measures include benefits received for complete or partial unemployment, compensation for being laid off and for bankruptcies.

(2): For 18-34 year-olds having left the education system a maximum 3 years before 2009.
Employment situation of young adults

More than half of 20- to 24-year-old men are employed in the Nordic countries, Central European countries, the UK and Austria (Figure 33). The rate is much lower in Eastern and Southern Europe, standing at just 28.7% in Greece. The trend is much the same for 15- to 19-year-old men, with employment rates being extremely low in Eastern and Southern Europe (2.2% in Hungary) but particularly high in Austria, the Netherlands, Switzerland, Iceland and Denmark. Overall, roughly two-thirds of 25- to 29-year-old men have jobs, but the share is higher (at 80% or more) in the Nordic, English-speaking and Continental European countries and much lower in Southern and Eastern European countries.

Figure 33. Employment rate for 25- to 29-year-old men (emp2h).

The situation of 20- to 24-year-old women is much the same (Figure 34). The employment rate overall is higher in Continental Europe and the Nordic countries, where the employment rate of women is higher than in the other countries – the employment rate of women being higher in the Netherlands irrespective of age group. In contrast, the employment rate of 20- to 24-year-old women is the lowest in Greece, at 18.7%, and relatively low in the other countries of Southern and Eastern Europe.
Employment situation of young adults

Figure 34. Employment rate for 25- to 29-year-old women (emp2f).

Young adult unemployment rates are higher as a whole in the countries of Southern Europe and most of the Eastern European countries (Figures 35 and 36). Roughly half of the 20-24 year-olds in Spain and Greece are job seekers and the rate remains considerably higher for 25-29 year-olds than in other countries. In contrast, young adult unemployment rates are particularly low in the Nordic countries, Germany, Austria and the Netherlands. Differences in unemployment rates per age group are also substantial in high-unemployment countries and particularly low in countries with overall low rates of unemployment.
No positive linear relationship is to be seen between the number of 20-24 year-olds benefiting from aid to integrate the job market and the unemployment rate of these same individuals (Figures 37 and 38 for the long-term unemployment rate). In Central and Eastern Europe and in Ireland and Sweden, no more than 6% of 20-24 year-olds benefit from this aid and the
unemployment rate is reasonably high. In the other Nordic countries and in Malta and the Netherlands, participation in integration programmes is equally frequent but the unemployment rate is much lower. Portugal, Italy and France deviate from the trend with unemployment rates for 20-24 year-olds similar to those in the other countries but with stronger coverage of integration programmes. In contrast, Austria and Germany have particularly low young adult unemployment rates (7%) but have rates similar to those in Portugal as concerns the participation of young adults in employment integration policies.

**Figure 37. Percentage of 20-24 year-olds benefiting from employment integration programmes and rate of unemployment.**

(1): For 20-24 year-olds in public policies 2 to 7: vocational training, employment incentives, sheltered and supported employment and rehabilitation, direct job creation and aid for business creation.
Figure 38. Percentage of 20-24 year-olds benefiting from employment integration programmes and rate of long-term unemployment.

Neither can a linear relationship be observed between the unemployment rate and the proportion of the young unemployed receiving compensation (Figures 39 and 40). France, Belgium, Sweden, and, to an even greater extent, Ireland stand out with comparatively high rates of young unemployed receiving compensation given their unemployment rates (Figure 39). The unemployment rate (including long-term unemployment) is as a whole lower in the Nordic countries, where the coverage of compensation systems is as strong as in countries with high unemployment rates.
Figure 39. Percentage of 20-24 year-olds receiving public income when out of work and rate of unemployment.

Figure 40. Percentage of 20-24 year-olds receiving public income when out of work and rate of long-term unemployment.

(1): For 20-24 year-olds in public policies 8 and 9: income support and maintenance when out of work and early retirement.

(2): 12 months and over.