

# **Taxation and Skills**

Financial Incentives to Invest in Education

BETTER POLICIES FOR BETTER LIVES

Centre for Tax Policy and Administration

# **Taxation and Skills - Denmark**

The OECD's Taxation and Skills Study measures how tax and spending policies impact financial incentives to invest in skills, and how the costs and returns to skills are shared between students and governments.

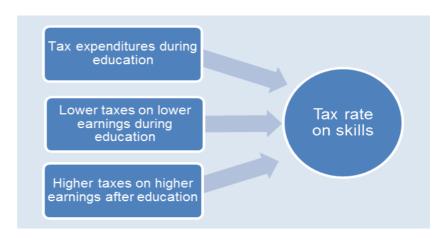
The costs of skills investments for students include tuition fees and the earnings foregone in the labour market during periods of study. These costs are offset by scholarship and grant income, by reduced taxes on lower levels of income during periods of study, and by tax expenditures that reduce the costs of skills such as tax deductions and credits for skills expenses. The returns to skills considered in the study are the higher wages students can earn after education.

# The impact of the tax system on incentives to invest in skills

The **Effective Tax Rate on Skills** measures the overall impact of the personal income tax system on skills. This impact occurs in different ways:

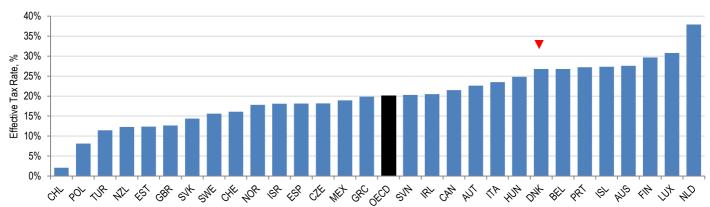
Tax expenditures allow tuition fees and other

- » direct costs to offset tax liability, reducing the costs of skills.
  - When income is foregone while studying, tax
- » liability usually falls as well, reducing the costs of skills.
  - When income rises after education, higher
- » taxes are paid on this income, reducing the returns to skills.



For a typical 17-year-old university student undertaking a four-year degree in Denmark, the Average Effective Tax Rate on Skills is 26.8%, the 8th highest value in the 29 OECD countries considered in this study.

# Effective tax rates on an average tertiary skills investment, 2011\*



\* All results in this country sheet are shown for a 17-year-old single taxpayer with no children, who undertakes a four year course of non-job-related education, earning 25% of the average wage while studying. Personal income taxes are incorporated in these results, but not social security contributions. The results also do not incorporate tax expenditures that subsidise firm spending or parental spending on education. Other stylised skills investments are discussed in the Taxation and Skills study.

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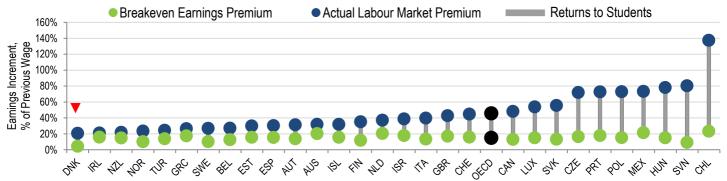
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#### Costs and returns of skills investments for students

The Taxation and Skills Study also measures the overall financial costs and returns of education for students.

- The Breakeven Earnings Premium measures how much earnings must rise for students to recoup their education costs. In Denmark, » earnings must rise by 4.5% for students to break even on a skills investment, the lowest value in the 29 OECD countries considered in this study.
- The Actual Labour Market Premium shows how much the students' earnings currently rise based on labour market data. In Denmark, this premium is 20.6%, the lowest value in the countries considered in this study.
- The difference between these two measures shows the Net Education Returns to Students. In Denmark, this difference is the 20th highest in the countries considered in this study, and provides lower incentives to invest in tertiary education than the OECD average.

# College labour market premium versus breakeven earnings premium, 2011\*



# Costs and returns of skills investments for governments

The **Returns to Costs Ratio** measures whether the returns in the form of higher future personal income tax revenue cover the costs to the government of educating a student.



The Average Returns to Costs Ratio in Denmark is 0.59 for a student earning an average return on an investment, the 5th lowest value in the 29 OECD countries considered in this study. This suggests that future expected income tax revenues may not by themselves cover the costs of skills for the government, though other forms of tax revenue may do so.

# Ratio of income tax returns to costs of education for governments, 2011\*

