

**Participation in education during the crisis:
did the income or the substitution effect prevail?**

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Economic theory is inconclusive on the issue of the procyclicality of participation in education. Changes in wages (assuming wages themselves are procyclical which is by no means universally accepted) and job availability lead to income and substitution effects which act in opposite directions. It is not *a priori* clear which will prevail. A fall in wages reduces the opportunity cost of the time devoted to education and thus increases the probability of participating in education (substitution effect). A fall in wages, however, leads *ceteris paribus* to a decrease in household income pushing individuals to work for longer hours in order to maintain their standard of living (income effect). The income effect thus increases the probability of longer working hours rather than the probability of participation in education. If we thus observe that students complete their studies sooner than in the past we could argue that this is an indication of the income effect prevailing. If the substitution effect prevails, however, this implies that the cost of an economic downturn is mitigated as human capital improves and thus potential output. Applied economics literature appears to support the latter result (see, for example, Dellas and Sakellaris, 2003, Heylen and Pozzi, 2007).

The paper looks at participation in education during the period 2000-15 to test the hypothesis of procyclicality in education in Greece. The hypothesis is being tested on the basis of three datasets: first, data from the quarterly **Labour Force Survey** which provides information on individuals' activities and on household income (albeit in intervals), second, data from the **Standard on Income and Living Conditions** database which collects information on activities and detailed household income on an annual basis and finally, the **Adult Education Survey** which explicitly surveyed individuals' motivation for participation in education in 2007 and 2011.

Participation in education has been on an upward trend in Greece since the 1980s. The upward trend does not appear at first sight to have been interrupted by the prolonged

economic and financial crisis. In more detail: preliminary results on the basis of the Labour Force Survey suggests that while in the initial phases of the crisis the income effect might have prevailed, as young individuals would try to support their family by refraining from continuing their education past upper high school, since 2013 it appears that the substitution effect is gaining ground. This is encouraging news when evaluating the cost of the crisis as it suggests that the improvement in human capital could push potential output.

References

Dellas, H. and Sakellaris, P. (2003), "On the cyclicity of schooling: theory and evidence", *Oxford Economic Papers*, 55:1, 148-172.

Heylen, F. and Pozzi, L. (2007), "Crises and human capital accumulation", *Canadian Journal of Economics*, 40:4, 1261-85.