

The Long-Lasting Effects of School Entry Age: Evidence from Italian Students

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SOMMARIO: We investigate the effects of the month of birth on school performance of Italian students using three different, well-known, datasets analyzing the achievement of students in different subjects and at different stages of their scholastic career. Firstly, we study pupils' performance in Reading Literacy at the fourth grade using the 2006 PIRLS-Progress in International Reading Literacy Study. Secondly, we focus on Mathematics and Science knowledge for children at the fourth grade (approximately 9-year-olds) and eighth grade (13-year-olds) using the 2007 TIMSS-Trends in International Mathematics and Science Study. Finally, we deal with 15-year-old students, in their upper secondary school, using the 2009 PISA - Programme for International Student Assessment, reporting the type of secondary school chosen and students' performance in the fields of Mathematics, Science and Reading Comprehension.

The use of these datasets allows us to verify if there is an effect of the month of birth on school performance for 9-year-old students and if the effect of age remains stable or tends to decline as students progress along their career until students are 15 years old.

Since student's age in a grade may be endogenous, we use an Instrumental Variable estimation strategy exploiting the exogenous variations in the month of birth coupled with the entry school cut-off date. We find that younger children score substantially lower than older peers at the fourth, the eighth and the tenth grade. The advantage of older students does not dissipate as they grow older. We do not find any significant effect of the relative age of a child with respect to the classmates' age. Finally, we show that secondary school students are more likely to be tracked in more academic schools rather than in vocational schools if they are born in the early months of the year.