Staying-on at school at 16: the impact of labor market conditions in Spain

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Abstract

Despite the recent increase in educational investment, Spain still ranks towards the bottom of the OECD country list for the level of its human capital stock and the new inflow of high school graduates. We address this issue by investigating the impact of family characteristics and local labor market conditions on the demand for post-compulsory education. We find clear evidence of a positive effect of youth unemployment on the demand for education, alongside with a negative effect of adult unemployment. However, in quantitative terms, the record levels of youth unemployment, that should discourage an early labor market entry, did not enhance substantially the demand for post-compulsory education. Parents’ education seems instead to be the main determinant of school enrollment, producing a sort of inter-generational persistence in the Spanish stock of human capital. © 2002 Elsevier Science Ltd. All rights reserved.

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1. Introduction

This paper studies the impact of local labor market conditions on the enrollment rates of Spanish youths into post-compulsory education at age 16.

There are important motivations for this work. First, reducing the high school dropout rate is among the priorities of social policies in most countries. It is well known that youngsters that do not complete secondary education are relatively likely to experience unemployment, to hold unstable and low paid jobs, and to enjoy lower earnings growth along their careers (see Stern, Paik, Catterall, & Nakata, 1989; Katz & Murphy, 1991). For these reasons the Organization for Economic Cooperation and Development (OECD) suggests that countries should be concerned about “the number of adults who have not attained upper-secondary education and therefore are likely to lack the foundation needed to build up their human capital” (OECD, 1998a, p. 93). This policy recommendation strongly applies to the Spanish case. Although educational investment has been more spectacular in Spain than in any other OECD country over the past two decades (see Ministerio de Educación y Ciencia, 1994), the proportion of Spanish youngsters who stay in school at ages 16–18 is still, by OECD standards, fairly low.

Second, unemployment has recently become one of the most serious problems hitting the Spanish economy. In the 1994 peak, joblessness was affecting a quarter of all workers, situating Spain at the top of the OECD list of countries as far as the overall unemployment rate is concerned. What is also striking are the low employment prospects of Spanish youths, whose unemployment rate is more than twice the adult rate (OECD, 1994, Table 1.13). Given these pieces of evidence, it is particularly insightful to study the impact of poor labor market performance, especially for youths, on the demand for upper secondary education in Spain.
On the one hand, it can be argued that high youth unemployment rates may drive young people to postpone their entrance into the labor market, by reducing the expected gains from job search and therefore the opportunity cost of their educational investment. This mechanism tends to generate a positive effect of current youth unemployment on the probability of staying-on at school after the completion of compulsory education. On the other hand, an increase in adult unemployment may increase the probability of expected future unemployment, which reduces the returns to education, and hence the demand for schooling. Furthermore, higher prime age unemployment may imply tighter budget constraints for families with teenage children, therefore discouraging enrollment into post-compulsory education. The combination of these last two effects should deliver a negative impact of unemployment on enrollment rates (see Micklewright, Pearson, & Smith, 1990).

The relationship between enrollment rates and economic conditions has been studied in the literature on the demand for education at different levels, providing somewhat mixed evidence. Pissarides (1981) finds a positive effect of the aggregate, adult rate of unemployment in a time-series model for the determination of the enrollment rate into post-compulsory education in Britain. Enrollment rates seem instead almost unaffected by the youth unemployment rate. A similar effect of the adult rate in Britain has also been documented on individual data (Rice, 1987; Micklewright et al., 1990; Bennet, Glennerster, & Nevison, 1992). These contributions therefore seem to deliver an impact of labor market performance on enrollment rates that mainly works through its effect on the return to youth job search.

For the United States, the time-series analysis by Mattila (1982) finds a positive effect of the general unemployment rate on male school enrollment. A positive impact is also documented on micro-data by Corman (1983), and is interpreted as an opportunity cost effect. The relative unemployment rate of the skilled is also included in Corman’s work, as a proxy for the returns to education, but it turns out to have the expected impact on enrollment only in very few specifications. Work on college-level data by Grubb (1988) finds instead that university enrollment is not especially sensitive to labor market conditions. More recently, Betts and McFarland (1995) distinguish the effect of youth versus adult unemployment on new enrollments on a sample of US community colleges. They find a positive effect of both unemployment rates on full-time education demand, but the effect of youth unemployment turns negative when it comes to part-time education demand.

Finally, for the Spanish case, previous work has mainly focused on the determinants of the demand for higher education. González López-Valcárcel and Dávila Quintana (1998) find a non-significant effect of unemployment on the demand for higher education in general, while a negative effect is detected by Modrego (1987) on the choice of enrolling into 5- versus 3-years degrees. More recently, Albert Verdu (2000) finds instead a positive impact of unemployment on the demand for higher education in Spain.

It may be argued that these mixed results are at least partly the effect of the lack of the adequate unemployment control (in some cases), as well as the level of aggregation used for the characterization of local labor markets. In our analysis, we intend to identify the two contrasting effects of unemployment on the demand for post-compulsory education in Spain. This is done by conditioning enrollment rates at 16 on two unemployment concepts. We use the unemployment rate of youths aged 16–24 as a proxy for the opportunity cost of remaining in the schooling system. The general unemployment rate is instead included as a signal of poor employment prospects for the future, and/or as an indicator of budgetary restrictions. The use of both controls delivers quite clear-cut evidence: staying-on rates respond in fact positively to youth unemployment and negatively to adult unemployment for both males and females. The quantitative impact of youth and adult unemployment on the demand for education is then contrasted with the effect of usual family background controls such as parents’ education and occupation.

For this purpose, we use three cross-sections of youths, interviewed within the Spanish Labor Force Survey (EPA) in the second quarter of 1987, 1991 and 1996, respectively. In particular, for 1991, the availability of data from the Census of Population allows to match individual record files with very detailed information on unemployment rates by sex, age and educational qualification at the provincial level, and a number of other provincial indicators. We argue that entering the local (provincial) labor market best represents the alternative to schooling for youths aged 16, that tend to live with their parents. Provinces can adequately be considered as self-contained labor markets where young workers live and may look for a job. Search channels mostly used by youngsters such as local newspapers and public unemployment offices are in fact organized on a provincial basis.

The organization of this paper is as follows. Section 2 presents a brief overview of the stylized facts that we address. In Section 3 the main characteristics of secondary education in Spain are summarized, and Spanish enrollment rates are compared with those of other OECD countries. Section 4 describes our framework for the study of staying-on rates and the data used. Section 5 presents our estimation results. Section 6 concludes and summarizes the main findings.
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