

A multilevel approach to the analysis of contextual risk in the Italian school-to-work transition¹

L'approccio Multilevel per lo Studio dell'Influenza del Contesto Territoriale sul Processo di Transizione Scuola-Lavoro

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Riassunto: a conclusione del percorso scolastico, i giovani diplomati sperimentano una fase temporale transitoria verso la vita adulta in cui maturano le decisioni su quali percorsi di vita da intraprendere. L'indagine dell'Istat "Percorsi di studio e di lavoro dei diplomati di scuola secondaria superiore" consente di analizzare gli esiti del processo di transizione scuola-lavoro in Italia. La relazione tra il contesto territoriale di appartenenza e i percorsi intrapresi dopo il diploma è stata verificata con un'analisi multilivello che permette di studiare i comportamenti dei diplomati nel processo di transizione tenendo conto dell'interazione tra caratteristiche individuali (dimensione micro) e del contesto regionale di appartenenza (dimensione macro).

Keywords: School-to-work transition, Contextual effects, Multilevel modelling

1. Introduction

In the most recent social research, a great emphasis has been placed on micro-macro linkages in order to assess how the social and economic characteristics of the individual's context may affect their social behaviours. In this study it has been hypothesised that the socio-economic context influences the individual job condition at the interview time. Data used for the analysis have been drawn from the "Survey on school-to-work transitions of secondary school graduates", performed by Istat in 2004 on young people who completed the secondary school in 2001. The survey is carried out every three years with young students that are interviewed approximately three years after their graduation from secondary school. A total of 20,408 graduates selected from a sample of 1,802 schools were interviewed by telephone through the CATI system.

2. Data and methods

Bivariate analyses were conducted in order to highlight the importance of contextual factors, including socio-economic and labour market characteristics, on transition outcomes. Infact, young people living in Northern Italy have a very high propensity to take part in the labour market with stable employment (Istat 2006).

¹ This study is included in the research project conducted by the Italian researcher group "Family and health between gender system and institutions" coordinated by Prof. Antonella Pinnelli of the Department of Demography (University "La Sapienza", Rome).

A multilevel model with random intercept is specified to evaluate the effects of geographical area on the choice of entering the labour market by Italian young people graduating in 2001 (Goldstein 1995). Multilevel modelling was used to distinguish two levels of the analysis: the individual level represented by graduates (including variables relative to the individual characteristics like gender, school experience, and type of diploma obtained) and the contextual level represented by region of residence (including variables relative to the social and economic context like socio-economic and labour market characteristics) (Rivellini 2003).

3. Results and discussion

Outcomes of multilevel models show the influence of territorial dimension on the choice to take part in the labour market during the three years following their graduation. About 15% of the total variability in the dependent variable (i.e. working condition of graduates) was explained by the geographical area. From null model to final model, we observed a decrease in the residual variability, with a consequent reduction in the intragroup correlation to 3%. The unemployment rate explains a significant proportion of the regional variability. Also variables relative to the school experiences play an important role: the effect of school's type and diploma exam mark are consistent, as graduates coming from a general school with high final mark have a lower propensity to enter in the job market compared to graduates from vocational education with low final marks. Finally, also the family's background variables (education level and social class) significantly affect the graduates' working condition. Therefore, the graduates with lower family background have a higher propensity to take part in the labour market.

Table 1. *Multilevel models estimates and interpretation*

Parameters	Model 1	Model 2	Model 3	
	Parameter (s.e.)	Parameter (s.e.)	Odds ratio	Parameter (s.e.) Odds ratio
Intercept	-0,361(0,096)*	1,329(0,122)*		1,488(0,064)*
Fixed effects				
Type of school (general vs vocational)		-1,559(0,039)*	0,210	-1,625(0,041)* 0,197
Diploma exam mark				
(high 79-100/100 vs low 60-78/100)		-0,847(0,039)*	0,429	-0,888(0,040)* 0,411
Scholastic failure (without vs with)		-0,507(0,043)*	0,602	-0,527(0,044)* 0,590
Family background (high vs low)		-0,328(0,041)*	0,720	-0,342(0,043)** 0,710
Parents' level of education (high vs low)		-0,416(0,042)**	0,660	-0,437(0,043)** 0,646
Unemployment rates of 20 to 34 year-olds				-0,056(0,006)* 0,945
Random effect				
Second level variance	0,172(0,058)*		0,248(0,083)*	0,033(0,014)*
Intragroup correlation	0,147		0,199	0,032

(b) *significance $\leq 0,0001$; **significance $\leq 0,001$

References

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