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ABSTRACT

Greece has today the highest youth unemployment rate in the EU-27 while employment precariousness is disproportionately concentrated among young workers. Youth unemployment and employment precariousness are extremely high even among higher education graduates, generating a very long period of transition from education to work. Protracted transition calls for the development of diverse strategies for successful labour market integration before and after graduation. In this paper we use micro-data from a nation-wide survey conducted in 2005 to examine the incidence of different transition strategies among Greek university graduates, assess their effectiveness for successful labour market integration 5-7 years after graduation and test if the findings conform to the southern European pattern of labour market entry advanced by comparative socio-economic literature. The theoretical framework of our analysis is that of labour market segmentation and job competition theory in a context of high unemployment and imperfect information.

Keywords: Early careers; Greek university graduates; Higher education; Labour market integration; Transition strategies.

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1. Introduction

Greece has today the highest youth unemployment rate in the EU-27 while employment precariousness is almost exclusively concentrated among young workers, making their transition from education to work long and difficult. Young university graduates display the highest unemployment and temporary employment rates among the 20-29 year-olds of all educational attainment levels. In 2008, their risk of unemployment in the 20-24, 25-29 and 30-34 age groups was respectively 29%, 16% and 7% while their rate of temporary work in the same age groups was respectively 33%, 26% and 17%. It follows that, even in the first half of their thirties, a significant proportion of Greek university graduates have no access to stable employment and thus not completed their transition from higher education to work.

The increase in employment precariousness during the transition period in recent years reflects the massive integration of young university graduates in secondary sector jobs and is linked to the deepening of segmentation in the Greek labour market and to its extension to the public sector, with new hires being systematically made on private limited duration contracts.

Greek researchers have attributed high unemployment rates among graduates and difficulties in their transition from education to work to different causes. Kanellopoulos *et al*. (2003) argue that transition difficulties are due to the orientation of higher education to the needs of the public sector and its concomitant incapacity to cater the needs of the business sector. In contrast, Liagouras *et al*. (2003), Karamessini (2008) and Thomaidou *et al*. (2009) maintain that the main cause is the gap between the outflows from higher education and domestic demand for highly educated personnel.

Protracted transition calls for the development of diverse individual and family strategies for successful labour market integration. Before graduation, these include the acquisition of job experience, work-based training organized by the university and related to the curriculum, and the achievement of a high grade of degree. After graduation they consist of the adoption of different job search strategies (long wait or job mobility) and methods (informal networks, ads, competitions, etc.), the accomplishment of postgraduate studies and participation in active labour market policy schemes (ALMPs). Transition strategies vary by gender and social origin.

In this paper we use micro-data from a nation-wide survey conducted in 2005 to study the incidence of these different strategies among Greek university graduates. We also assess their effectiveness in enabling successful integration and labour market outcomes in early careers i.e. 5-7 years after leaving university.

Some recent comparative research on the patterns of labour market entry in European labour markets has empirically identified a distinctive Southern European pattern next to those of Northern and Continental European countries (Gangl 2001, 2003; Sherer, 2005). According to this literature, this pattern is characterized by very protracted first job searches or long wait, low levels of job mobility, stability of jobs once found, a risk of unemployment diminishing with labour market experience but not with education, strong educational effects on occupational attainment. The Southern European pattern of labour market entry can be observed in Greece, Italy and Portugal.

An additional aim of this paper is thus to test the validity of the three central features of this pattern i.e. long periods of search, low job mobility and high job stability, in the case Greek university graduates given the pervasive employment precariousness they experience until their mid thirties.

In the second section of the paper we make a literature review and present the theoretical framework endorsed for the empirical analysis, while in the next section we describe the data and methods used for the statistical analysis. We then use indicators to describe the labour market integration of university graduates 5-7 years after graduation and the basic features of their transition from university to work (section 4) and proceed to the statistical analysis of the impact of different transition strategies on the main aspects of labour market integration (section 5).

2. Theoretical framework and literature review

The transition from education to work is a fast developing field of research in recent years. The empirical analysis of its different aspects has mobilized a variety of disciplinary approaches, theoretical frameworks and statistical methods. Within the economic literature, the general rise of unemployment has been stated as the most important macro-economic factor responsible for the deterioration of young people's relative position in the labour market in recent decades (Blanchflower and Freeman, 2000). This has more than compensated the positive effect exerted by demographic trends, the spectacular decrease in the activity rate and the increase in the education attainment level of young people, and the rise of the share in the GDP of sectors usually absorbing the majority of new labour market entrants (Ryan, 2001).

Economists agree on the crucial role of the macro-economic context for the speed of labour market integration of a cohort of graduates and the duration of the transition period. Yet, they do not always agree on the role played by other factors such as the wage determination system, the stringency of employment protection legislation, the links between the education system and the labour market, and labour market policy.

There are several theoretical frameworks for analyzing the labour market entry of school-leavers and their relative performance in their early careers (for a brief overview, see Couppié and Mansuy, 2004). The theories of human capital (Becker, 1964), labour mobility (Rosen, 1972; Sicherman and Galor, 1990), job

search (Mortensen, 1970; Parsons, 1991), job matching and turnover (Jovanovic, 1979, 1984), job competition (Thurow, 1975) and labour market segmentation (Doeringer and Piore, 1971) account in different ways for the lower relative wages, the higher unemployment rate, and the greater labour mobility of young people, especially during their first years in the labour market. However, only the theories of job competition and labour market segmentation are based on the hypothesis of rigid wages and the possibility of job rationing. For the first theory this hypothesis is valid for the whole labour market, structured by internal labour markets, while for the second theory the hypothesis holds only for the firms of the primary sector.

According to job competition theory, the unemployed form job queues in front of the ports of entry of the internal labour markets. Their position in the queue depends on their individual features used by the firms as indices of the training costs they incur in case they hire the person for the job. For the same educational level, sex, ethnic origin etc., young primo-entrants are behind their older counterparts in the queue because they lack work experience. Unemployment is thus represented as a waiting period for hire; its duration and level depend on the macro-economic conditions that influence the level of labour demand. The incidence of unemployment is higher among young people since first job seekers form the majority of those on the labour queues. Apart from its more realistic hypotheses for the functioning of the labour market and the advantage of joining micro and macro explanations of unemployment in the same framework, the job competition model presents the merit of being

compatible with the role of education as a filter under the strong or weak screening hypothesis (Arrow, 1973; Spence, 1974; Stiglitz, 1975) and the theory of statistical discrimination (Phelps, 1972).

However, this model cannot explain either recurrent unemployment or job mobility. Labour market segmentation theory can fill this gap, since it makes the hypothesis that the hiring criteria are not the same in the different segments of the labour market. Age is one of these criteria in the primary sector of the labour market, since -ceteris paribus- employers consider workers with greater work experience more productive. As a result, young people have first to obtain work experience in firms and jobs of the secondary sector of the labour market before seeking a job in the primary sector. In so doing, low wages in the former sector are an incentive for voluntary mobility, associated or not with unemployment spells. Voluntary mobility may also stem from the weak work attachment of certain groups of young people. At the same time, young people employed in the secondary sector run a greater risk of involuntary mobility. That is because they are more likely to be fired than older employees in the primary sector of the labour market when there is a downturn of the economic activity. The expansion of flexible employment forms in recent decades and the erosion of internal labour markets have amplified the risk of employment instability among youth for a longer period after the exit from education than in the past.

The Greek labour market has several persisting characteristics including: the enormous unemployment and temporary employment gaps between young and older labour force participants, the predominance of internal labour markets, and the traditionally pronounced labour market duality -recently expanded even to the public sector). These characteristics warrant the relevance and plausibility of the job competition model and labour market segmentation theories. This is the theoretical framework we have used for our empirical analysis of the transition strategies and labour market integration of Greek university graduates.

In this framework, all forms of human capital accumulation before graduation i.e. work experience and participation in training during undergraduate studies, operate for employers as signals of higher work-related skills and productive capacities (Beduwé and Cahuzac 1997, Beduwé and Giret 2001). Moreover, joblessness may generate job loss 'recidivism' if employers use individuals' joblessness prior to the current job spell as a screening device to select out those who will be allocated to short-lived jobs (Heckman and Borjas, 1980, Theodossiou, 2002).

However, this framework ignores the role of mismatches in the occupational structure of labour demand and outflows from the education system in determining the employment opportunities of young graduates. As a result, empirical studies of the transition from higher education to work systematically include the field of study or college major among the determinants of labour

market outcomes in early careers, but most of the times without theoretical justification (Roska, 2005). Besides, very few studies have focused on the role of organizational hiring and HR management practices and their differences by economic sector in shaping the modes of integration of young labour market entrants (Moncel, 2001).

Institutionalists and sociologists have introduced additional dimensions in the analysis of the transition from education to work. Socio-economic approaches and comparative research on labour market entry have revealed the role of labour market institutions and the structure of the education system in shaping different patterns of entry. The starting point for this literature is Kerr's distinction of occupational, firm and competitive labour markets, as elaborated by Marsden (1986).

Garonna and Ryan (1989) were the first to make the link between these three types of labour markets with three patterns of young people's labour market entry: regulated integration, selective exclusion and competitive regulation. Shortly after, Marsden (1990) argued about youth entry that "the critical point in an economy where ILMs predominate is to gain access to the right firms and to ensure that any downgrading involves taking unskilled jobs in firms with good prospects, rather than jobs in low paid industries… In an economy with OLMs, the critical choice is that of which occupation to enter." (p. 432).

Given the insignificant role of competitive labour markets in advanced economies, the literature inspired by this framework has focused on the internal

labour markets (ILM)/ occupational labour markets (OLM) distinction and its impact on the patterns of youth labour market entry.

The basic argument stemming from this framework is that the role of education and credentials is more important in achieving youth labour market integration in OLM than in ILM where experience is more critical. The mobility rate and the percentage of new hires into low-skilled jobs are higher in ILM than in OLM. At the same time, the relative role of education vs. experience in determining mobility and the structure of unemployment, secondary sector employment and status attainment is greater in OLM than in ILM (Gangl 2001). Mobility rates are also affected by the employment protection legislation. Strict employment protection legislation reduces labour market turnover and generates low vacancy levels, thus producing a negative effect on job mobility and upward status mobility (Gangl 2003).

The speed of finding a (first) job and the stability of jobs are important aspects of the patterns of labour market entry (Sherer 2005). The ILM and OLM distinction and the strictness of employment protection legislation are not the only determinants of these aspects. Another important aspect is the vocational specificity of the education and training system (Shavit and Müller 1998). Labour market entrants already qualified for an occupation do not have to be trained on the job to the same extent as school leavers with general education. Recruitment may thus take place directly while the selection and assignment

processes are speeded up by the clear signal transmitted to employers by the specific occupational qualification (Sherer 2005).

Recent empirical comparative research has revealed that Southern European countries, namely Italy, Portugal and Greece, cluster together and exhibit a specific pattern of labour market entry. This pattern combines elements from both ILM and OLM, since qualification and experience effects are equally strong (Gangl, 2001). In particular, unemployment risks are unrelated with education and depend only on experience, but occupational attainment is strongly related with education. Moreover, there are very low levels of mobility even at labour market entry and even less volatility once initial employment is secured. These specificities are attributed to strict employment protection legislation, and the protective role of the family that enables young people to wait until adequate employment is secured (Gangl 2001). This voluntary component of unemployment has been identified as part of the explanation of 'long wait' in Italy, deduced by a paradoxical positive relationship of aggregate youth unemployment rate with the speed of entry in this country (Sherer 2005). Moreover, Bison and Esping Andersen (2002) advance another hypothesis to explain high youth unemployment in Southern Europe. Their hypothesis dwells on high reservation wage of youth due to extensive family support, with Greece and Italy being their representative cases.

Economists and sociologists have developed a number of theoretical arguments linking social background with the quantity and quality of education received

and school and labour market performance (Becker 1964, Bourdieu 1973, Bowles and Gintis 1973, Lévy-Garboua 1979, Lydall 1979). In particular, they have pointed to the impact of the family's financial and educational resources or class belonging on the individual's intelligence, ability, and motivation for learning, acquisition of social skills, volume of human capital investments and access to good educational institutions. Moreover, Passeron (1982) was the first to use Bourdieu's notion of 'social capital' in order to argue that the social networks that individuals possess thanks to the social position of their family play an important role in determining the returns of their investment in human capital. The individuals whose networks reach into the largest number of relevant institutional realms will have a great advantage over those without or with limited access (Granovetter 1992). The importance of family networks for access to employment has been identified by several empirical studies of the Greek labour market (see *inter alia* Patrinos 1995).

Last but not least, gender differences are present in all aspects of the transition from education to work. They can be mainly attributed to three distinct but interrelated causes:

- Gender differences in human capital investment and educational choices;
- Gender differences in family formation plans and the domestic division of labour;
- Labour market discrimination against women.

These differences and their determinants among university graduates in Greece have been recently explored by Karamessini (2009a).

3. Data, variables and methods

The micro-data used for our analysis of transition strategies and labour market integration of university graduates come from a nation-wide survey carried out by the Network of the Careers Offices of Greek Universities in 2005 on a representative sample of 13,615 graduates belonging to the 1998-2000 cohorts.[1] The individuals of the sample were questioned 5 to 7 years after graduation about their current labour market status, job characteristics and career aspirations as well as, retrospectively, on topics related to their studies and the transition process from university to work.

To explore the efficacy of different transition strategies of the individuals or/ and their families on labour market integration, we have used the micro-data of the survey to explore the impact of a number of variables corresponding to these strategies on the odds, 5 to 7 years after graduation, of being (a) employed vs. unemployed if active (b) in permanent vs. temporary employment if dependent worker (c) well-paid vs. medium or low-paid if dependent worker (d) holding a job matching vs. not matching the content of studies if dependent worker.

For all the above-mentioned cases we have estimated the coefficients of the predictor variables of dichotomous logistic regression models of the form:

$$\text{Log } [p_i(Y=1)/ (1-p_i(Y=1)] = a + b_1X_{1i} + b_2X_{2i} +\ldots+ b_kX_{ki} \quad (1)$$

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[1] The dataset does not include graduates from Higher Technological Education Institutes (ATEI), which are also part of the Greek higher education system.

The general hypothesis we have tested through statistical analysis is that, 5-7 years after graduation, the labour market integration and job characteristics of Greek university graduates are mainly accounted for by sex, having child(ren), family background, motivation for studies and ability, human capital accumulation before and after graduation, job mobility, the field of study, the private/ public sector of employment and the size of firm. "Parental income", the "father's" or "parental educational attainment level" are the variables that we have used to capture the impact of family background. "Interest for the field of studies at the entry of university" was used as a proxy for the motivation for studies while the "grade of degree" for ability. However, we have also assumed that the latter does not only - or mainly - depend on innate ability, but also - and mostly - on social origin, motivation for studies and individual strategies regarding the transition from education to work, affecting the decision about working while studying.

To control for human capital accumulation in addition to education we have used a great number of variables, such as "postgraduate studies", "work experience during undergraduate studies and type of work experience", "traineeship during undergraduate studies organised by the university", "participation to an ALMP scheme". To capture variations in the accumulation of work experience and job opportunities since graduation due to time spent in the labour market, we have used as a proxy variable the "time lapse since graduation".

Table 1: Dependent and independent variables.

Dependent variables	Values
Odds of being employed when active	Employed=1, unemployed=0
Odds of being a permanent worker when dependent worker	Permanent=1, temporary=0
Odds of being paid more than 1,100 € per month when dependent worker	Wages >1,100€ =1 Wages ≤1,100€=0
Odds of having full or rather good match with studies in job when dependent worker	Full or rather good job match=1 Little or no job match=0
Independent variables	
Age	Number of years
Sex	Man=1, woman=0
Having a child or more	No=1, yes=0
Sex * having a child	Man without children=1, Woman with children=0
Level of annual parental income	≤10,000€=2, 10,001-30,000€=1, >30,000€=0
Father's educational attainment level*	Low=2, medium=1, high=0
Parental educational attainment (continuous)**	2,3,4,6,7,10
Field of study	Ten groups of fields***
Motivation for studies at entry in university	Great scientific interest=3, small=2, no=1 I knew nothing about the field=0
Grade of degree (continuous)	From 5 to 10 points
Grade of degree (categorical)	Good=2, very good=1, excellent=0
Post-graduate studies	No=1, yes=0
Participation to traineeship programme during undergraduate studies	No=1, yes=0
Work experience during undergraduate studies	No or occasional experience =1, continuous=0
Potential work experience since graduation	Time lapse since graduation in months
Job mobility (all graduates)	Number of jobs before current state
Job mobility (dependent workers)	Number of jobs before current job
Joblessness period prior to current job spell	Up to 1 month=4, 1-6 months=3, 6-12 months=2 1-2 years=1, more than 2 years=0
Full/part-time work	Part-time worker=1, full-time worker=0
Type of contract	Temporary=1, permanent=0
Sector of employment and size of private firm	Public sector=2, private firm with <50 employees=1, private firm with >50 employees=0
Degree of match between job and studies	No match=3, little match=2, rather good match=1, full match=0

*Low=primary school or below, medium=lower or upper secondary education, high=higher education, Masters or doctoral degree. ** All combinations between father's and mother's educational levels (low, medium, high). ***Law, humanities, engineers, economics and business, positive sciences, social and political sciences, life and health sciences, agricultural and environmental sciences, fine arts, physical education and sports.

According to our approach, the human capital variables listed above, except for the last one, correspond to different transition strategies employed by individuals to achieve labour market integration. The scores that individuals

obtain in these variables operate as signals of potential productivity that influence the hiring and job assignment decisions of employers. The indicators of job mobility and the grade of degree perform the same function. The impact of labour demand on the degree and quality of labour market integration is captured by proxies such as the field of study, the public/private sector of employment and the size of firm. All the dependent and independent variables of all the regression models and their definition appear in Table 1.

The results of regression analyses are presented in the Appendix, which provides the coefficients of only the statistically significant independent variables for each regression model. A report on the variables that were found statistically insignificant appears in the footnotes of the Table. The model-building process was stepwise and used as a guide. The final model was checked to exclude collinearity by comparing results from univariate and multivariate analyses and by checking the K-agreement coefficient or the correlation coefficient, depending on the nature of the dependent variables. For continuous covariates we have alternatively used linear functions or categorical transformations to check for the appropriate functional form. To compare nested models for each regression model we have used the likelihood-ratio test. For the overall goodness of fit of the final model we have used and provide on the tables the Hosmer-Lemeshow test, which is considered more robust in the case of logistic regression than the traditional chi-square test, particularly if continuous covariates are included in the model. A finding of non-significance is needed to conclude that the model adequately fits the data, which is the case

in all our regression models. In logistic regression classification tables should not be used as goodness-of-fit measures, because they ignore actual predicted probabilities and instead use dichotomized predictions based on a cutoff (in our case 0.5). However, we also provide on our tables the percentage of correct classification for each regression model along with measures of the Cox and Snell and the Nagelkerke pseudo R-square.

Before discussing the results of statistical analysis, we will use some general indicators to describe the degree and quality of the graduates' integration and draw the basic features of their transition from university to work.

4. Labour market integration and transition characteristics

The results of our survey indicate that about 36% of university graduates have not yet stabilized in employment 5-7 years after finishing their studies, since 7% are unemployed and 29% in temporary employment. Moreover, out of those employed 17% are receiving wages around the minimum wage and 28% are doing jobs not matching their field of study (Table 2). Out of those unemployed 40% are long-term unemployed and about half of the latter for more than 2 years (Table 3). Female graduates perform worse than their male counterparts in all respects, especially with respect to wages and the duration of unemployment.

Table 2: Labour market integration 5-7 after graduation.

	Rates (%)		
Basic indicators	**Men**	**Women**	**Both sexes**
Employment rate	85,3	84,6	84,9
Unemployment rate	5,9	7,2	6,6
Permanent employment rate*	73,6	68,8	70,7
Temporary employment rate	26,4	31,2	29,3
Rate of highly-paid**	50,1	27,3	36,0
Rate of low-paid***	10,6	21,1	17,2
Job matching rate	74,0	71,3	72,3

* Also includes the self-employed whose business has good perspectives. ** Paid more than 1,100€ per month i.e. above the average wage in 2005. *** Paid 700€ or less permonth i.e. around the national minimum wage for unskilled workers in 2005.

Table 3: Duration of unemployment by sex.

	Distribution shares (%)		
	Men	**Women**	**Both sexes**
Less than 6 months	45,7	36,2	39,6
6-12 months	22,9	18,4	20,0
12-24 months	18,6	18,0	18,2
More than 24 months	12,8	27,4	22,2
All unemployed	**100**	**100**	**100**

Table 4: Job Mobility*

Absolute numbers	
Employment status	**Jobs**
Employed	3,2
Unemployed	2,5
Inactive	1,8
Sex	
Men	3,0
Women	3,0
Annal parental income	
Up to 10,000 €	3,3
From 10,001 to 30,000 €	2,9
30,000 € or more	2,7
All graduates	**3,0**

* Average number of jobs held in work history.

Up to 5-7 years after the end of their studies, graduates count three jobs on average in their work history (Table 4). There are no gender differences in job mobility but the graduates who are employed 5-7 after graduation display higher mobility than those who are unemployed and the latter higher mobility

than those who are inactive. Job mobility is also higher among graduates with low parental income than among those with medium or high.

In addition to averages, we can distinguish three groups of graduates according to the total number of jobs held in their work history: those with no or low mobility (0-2 jobs), those with medium mobility (3 jobs) and those with high mobility (4 jobs or more). These groups represent 46.2%, 25.1% and 28.7% of all graduates respectively. Graduates are thus polarised between those that are not mobile and those who are mobile or very mobile.

Table 5: Experience of significant job*

Shares (%)

Kind of experience	Men	Women	Both sexes
No experience	14,7	13,3	13,8
One experience – in the past	1,0	2,2	1,7
One experience – in current job	52,4	54,8	53,9
More than one – in current job and in the past	32,0	29,7	30,6
All employed	**100**	**100**	**100**
	Low parental income	**Medium parental income**	**High parental income**
No experience	17,4	13,7	10,9
One experience – in the past	2,8	1,5	1,5
One experience – in current job	51,1	54,1	52,7
More than one – in current job and in the past	28,7	30,7	34,9
All employed	**100**	**100**	**100**

* Average number of experiences according to work histories.

Job mobility in the early career is important for access to a significant job, but does not guarantee such access to all university graduates. Namely, 5-7 after the completion of their studies, 14% of graduates have still no experience of a significant job; 55.5% have only one such experience and the remaining 30.5% more than one. A slightly higher share of men than of women has more than one significant job in the 5-7 year period after graduation. More importantly,

the level of parental income is positively associated with both having had such experience and having it more than once in this period (Table 5).

Downgrading from a significant to a non-significant job is extremely limited, since nearly all those with experience of significant job in their work history also declare that their last job is a significant one. It is also noteworthy that the graduates whose first significant job is different from the job they hold 5-7 years after graduation experience on average *upward mobility*. Table 6 indicates that between the first significant and the last job:

a) The shares of the self-employed and public sector employees increase considerably, at the expense of the share of private sector employees.

b) The shares of dependent workers with a permanent contract and of those working full time rise while that of "external collaborators" on service contracts with mainly one employer (private or public) diminishes.

c) Net monthly earnings greatly improve.

d) The size of the firm/agency of employment clearly increases.

The above-listed trends suggest that the improvement of employment and working conditions between the first significant and the last job goes in parallel with increasing access to: (a) self-employment and (b) permanent and full-time dependent employment in the public sector and large firms/ agencies of the private sector.

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Table 6: Comparison of characteristics between first significant and current job*

Distribution - shares (%)

Form and sector of employment	First significant job	Current job
All employed		
Private sector	*75,4*	*60,8*
Employee	54,5	33,8
Service contract with mainly one employer	13,3	7,7
Worker in family business	0,9	0,9
Self-employed without personnel	4,6	15,5
Self-employed with personnel	0,5	2,9
Public sector	*24,6*	*39,2*
Employee	11,3	29,0
Service contract with mainly one employer	13,3	10,2
All	*100*	*100*
Dependent workers		
Permanent employment	*39,3*	*60,7*
Civil servant	1,9	22,3
Unlimited duration labour contract	36,8	38,2
Service contract with mainly one employer	0,6	0,2
Temporary employment	*60,7*	*39,3*
Limited duration labour contract	30,4	22,3
Service contract with mainly one employer	30,3	17,0
All	*100*	*100*
Full-timers	79,4	86,0
Part-timers	20,6	14,0
All	*100*	*100*
Net monthly earnings (€)		
Up to 500	31,5	7,9
501-700	24,8	9,2
701-900	19,7	15,0
901-1100	12,8	31,9
1101-1300	6,1	19,9
1301 or more	5,1	16,1
All	*100*	*100*
Size of firm (persons employed)		
Up to 4	15,1	8,9
5 to 9	17,1	11,5
10 to 19	17,1	18,2
20 to 49	16,8	17,1
50 or more	34,0	44,3
All	*100*	*100*

* Only for graduates whose first significant job was different from their current job.

Upward mobility thus implies the move of substantial numbers of graduates from dependent to self-employment and of those remaining dependent workers from the secondary to the primary sector of the labour market[2].

These trends reflect the gradual access and stabilization in "good jobs" of growing numbers of each cohort of graduates with the accumulation of labour market experience. However, the extent of upward mobility in the transition patterns of a particular cohort is determined by the economic conjuncture and industrial relations during the transition period. It is thus noteworthy that upward mobility involved about half of the Greek university graduates of the 1998-2000 cohorts who had experienced more than one significant job in their early career. However, 32% of the members of this group were still employees in temporary jobs 5-7 years after graduation and hence they had not completed their transition.

Apart from job mobility, the time lapse between graduation and first jobs and between subsequent jobs is another feature of the graduates' labour market entry and early career patterns. It indicates the length of joblessness (unemployment and inactivity) in these patterns. The Graduate Survey 2005 collected data on the time lapse between the current and the previous job or graduation for the 1998-2000 cohorts of graduates. According to these data (Table 7), 5-7 years after graduation, 5% of the latter held a job that had started

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[2] We take both terms from the dualistic version of labour market segmentation theory. The primary sector includes all permanent and well-paid jobs that offer advancement opportunities, while the secondary sector precarious and low-paid jobs with poor if at all advancement opportunities. The size of firms and their position in the market, management practices, and unionism are the structural/institutional determinants of internal labour markets and labour market segmentation.

before graduation while the remaining had found their current job after graduation. For 33% of the latter, the jobless period between their current and previous job was very short (up to one month), for 20% relatively short (1-6 months), for 10% medium (6-12 months) and for 37% long (more than one year). This period did not vary significantly by level of parental income but did vary by gender, with women displaying a shorter time lapse than men on average between their current and previous job.

Table 7: Time lapse between current and previous job or graduation

Distribution of employed graduates - shares (%)

Time lapse	Men	Women	Both sexes
Job started before graduation	4.9	5.3	5.1
Up to 1 month	29.3	32.2	31.1
1 to 6 months	15.6	21.0	18.9
6 to 12 months	6.8	11.4	9.6
1 to 2 years	18.4	12.6	14.9
More than 2 years	25.1	17.5	20.5
All employed graduates	**100**	**100**	**100**
Time lapse	Low parental income	Medium parental income	High parental income
Job started before graduation	5.1	4.7	4.9
Up to 1 month	29.1	31.6	31.9
1 to 6 months	20.2	19.5	19.2
6 to 12 months	10.4	9.0	8.8
1 to 2 years	14.6	15.4	14.6
More than 2 years	20.6	19.8	20.6
All employed graduates	**100**	**100**	**100**

From the above analysis we can deduce that graduates are polarised between those with no/low and those with high job mobility and between those with short and those with long non-employment periods in their early careers. Notwithstanding high employment precariousness among university graduates in the Greek labour market, for about half of those who have the experience of

more than one significant job in the 5-7 year-period after graduation, job mobility is upward i.e. it leads to the improvement of employment and working conditions of employees or entails starting a business activity. Interestingly, the higher the level of graduate's parental income is, the higher the incidence of more than one significant job is, and consequently, the more graduates benefit from upward mobility. Gender differences in this respect are insignificant.

5. Transition strategies, job search methods and labour market integration

The strategies adopted by individuals to achieve successful labour market integration are diverse and vary by gender and social origin. Given high unemployment and employment precariousness in the youth labour market, university students and graduates struggle to obtain good grades and acquire other forms of human capital in addition to their first degree (work experience, training, post-graduate degree). These strategies improve their position in the labour queues formed in front of the ports of entry of ILM in two ways. They either provide signals of greater ability or productive capacity to the employers, or simply fulfill explicitly set hiring criteria.

University students do not start developing their career plans and adopting the relevant "transition strategies" after graduation but well before it. The main strategies that students deploy before graduation involve: getting experience of continuous employment (ideally in the field of study), participation in

university organised traineeship as part of the curriculum, and getting high grades. After graduation, the main strategies are: participation to ALMP schemes and undertaking post-graduate studies. To these strategies we should add decisions about either long wait in search of a 'suitable job' or maximization of work experience in unsatisfactory jobs until the opportunity for a 'suitable' work is presented. The first option is related to low voluntary mobility and long duration of non-employment, while the second with high voluntary mobility and short duration of non-employment.

Table 8: Transition strategies by sex.

	Incidence rates (%)		
Strategies	**Men**	**Women**	**Both sexes**
Grade of degree – Excellent	3.6	5.5	4.7
Grade of degree - Very good	68.3	71.6	70.2
Continuous work experience during undergraduate studies	12.9	14.7	14.0
Traineeship organized by the university	37.9	44.3	41.8
Postgraduate studies	44.1	36.7	39.6
Participation to a ALMP scheme after graduation	19.0	28.6	24.8
Participation to training	13.7	19.2	17.0
Participation to work experience scheme	5.0	11.3	8.8
Participation to subsidized employment scheme	3.1	6.8	5.3

Tables 8 and 9 present the incidence of the transition strategies just discussed among university graduates by sex and level of parental income, calculated from the data of the Graduate Survey 2005. In contrast, the figures on job mobility and time lapse between jobs (presented in Tables 4 and 7) cannot be taken as pure indicators of transition strategies, because they are the outcome of both voluntary and involuntary mobility and non-employment.

Table 9: Transition strategies and level of parental income.

Incidence rates (%)

Strategies	Low income	Medium income	High income
Grade of degree - Excellent	2.0	4.2	6.2
Grade of degree - Very good	71.5	70.7	75.3
Continuous work experience during undergraduate studies	16.3	12.7	13.4
Traineeship organized by the university	45.6	41.7	35.9
Postgraduate studies	25.0	40.7	54.9
Participation to a ALMP scheme after graduation	31.4	25.4	17.0
Participation to training	21.9	17.4	10.9
Participation to work experience scheme	13.2	8.8	4.8
Participation to subsidized employment scheme	9.1	4.8	2.8

The incidence of all transition strategies is higher among female than male graduates, except for post-graduate studies where the opposite occurs. Social origin, as reflected in the income level of the graduates' parents, influences the adoption of particular strategies. The higher the parental income is, the higher the incidence of good grades and post-graduate studies is. Conversely, the lower the parental income is, the higher the incidence of continuous work experience, traineeship participation and participation to ALMP schemes after graduation is.

Transition strategies may be successful or not in allowing good labour market integration for university graduates. As previously mentioned we have tested through logistic regression analysis the impact of these strategies on the odds of being employed vs. unemployed, permanent vs. temporary worker, well vs. medium or low paid and having a job matching the content of studies or not 5-7 years after graduation. The results are presented in the Appendix and show the

impact on the odds of the dependent variable of only those of the independent variables that were found statistically significant.

The grade of degree positively influences the odds of being in permanent vs. temporary employment and the odds of having a job matching or not matching the content of studies 5-7 years after graduation. Namely, a one point higher grade of degree increases the odds of being in permanent vs. temporary employment by 14%. In addition, a graduate with excellent grade of degree is 100% more likely to hold a job matching vs. not matching the content of studies than if he/she has a degree with very good grade and 150% more likely than if he/she has a degree with good grade. Conversely, the grade of degree does not influence the odds of being employed vs. unemployed if active or of receiving high vs. medium or low wages 5-7 years after graduation if dependent worker.

Continuous work experience during undergraduate studies positively influences the odds of being employed vs. unemployed if active and the odds of being well paid vs. medium or low paid 5-7 years after graduation. In particular, the graduates who have continuous work experience during their undergraduate studies are 84% more likely to be employed than unemployed and 69% more likely to be well-paid than medium or low paid 5-7 years after graduation than their counterparts who have no or occasional work experience during undergraduate studies. On the other hand, continuous work experience during undergraduate studies does not have a statistically significant impact on the

odds of dependent workers being in permanent vs. temporary employment or in a job matching or not matching their studies 5-7 years after graduation.

Participation to traineeship schemes during undergraduate studies, related to the curriculum and organized by the university, is positively associated only with the odds of being employed vs. unemployed 5-7 years after graduation. Namely, the graduates who have participated in traineeship schemes during their undergraduate studies and are active 5-7 years after graduation, are 44.5% more likely to be employed vs. unemployed than their counterparts who have not participated in such schemes and are active 5-7 years after graduation.

Post-graduate studies are negatively related to the odds of being in permanent vs. temporary employment, but positively to the odds of being well vs. medium or low paid and having a job matching vs. not matching the content of studies 5-7 years after graduation. In particular, the graduates with post-graduate studies are 83% less likely to be in permanent vs. temporary employment but 44% more likely to be well paid vs. medium and low paid and 18% more likely to have a job matching vs. not matching the content of their studies than their counterparts with no post-graduate studies. The negative effect of post-graduate studies on the odds of being in permanent vs. temporary employment may look paradoxical at first sight. Yet it is understandable if we consider that post-graduate studies postpone transition. Consequently, graduates who have accomplished their post-graduate studies are on average more likely to be in temporary employment in their first years of transition than their counterparts

who have started their transition some years earlier and are more likely to have acceded to permanent employment. Post-graduate studies were found to have no statistically significant impact on the odds of being employed vs. unemployed if active 5-7 years after graduation.

Participation to ALMP schemes after graduation is negatively associated only with the odds of being employed vs. unemployed 5-7 years after graduation. Namely, the graduates who have participated to one or more ALMP schemes and are active 5-7 years after graduation, are 37% less likely to be employed vs. unemployed than those who have not participated at all to such schemes. We can thus deduce that participation to an ALMP scheme is an alternative to unemployment, but is considered by firms as a negative signal for hiring in a normal, non-subsidized job.

Job mobility, -measured by the number of jobs held before the current state or job and after controlling for the time lapse since graduation- positively influences the odds of being employed vs. unemployed, if active 5-7 years after graduation. In contrast, job mobility negatively influences the odds of: being in permanent vs. temporary employment; being well-paid vs. medium or low paid; and having a job matching vs. not matching the content of studies. In particular, an increase in the number of jobs by one raises the odds of being employed vs. unemployed by 3%, if active 5-7 years after graduation. On the contrary, it reduces the odds of being in permanent vs. temporary employment by 5%, that of being well-paid vs. medium or low paid by 7% and that of

having a job matching vs. not matching the content of studies by 6.5%. Employers seem to be very reticent regarding the productive capacities of those who change frequently firms and take job mobility as a negative signal.

From the discussion in the theoretical section of this paper we would expect that the longer the state of joblessness prior to the current job the lower the odds of this job being permanent vs. temporary, since the length of joblessness can be used by employers as a screening device to allocate workers to jobs of relatively short duration. Indeed, the graduates with more than two years of joblessness prior to the current job have the lowest odds of holding a permanent job 5-7 years after graduation, while those who have experienced a jobless period of up to one month the highest odds of holding a permanent job. Paradoxically, the graduates with 1-2 years of non-employment between the current and previous job are more likely to be in a permanent job 5-7 after graduation than those who have experienced 1-12 months of non-employment. Moreover, the latter do not have significantly different odds of getting a permanent job from those with a time lapse of more than two years between the current and previous job. If we combine these findings with the negative impact of job mobility on the odds of being hired in a permanent job, we can deduce that if one does not find a permanent job immediately after the end of the previous one, it pays more to wait for one to two years than accept a temporary job in the meantime. Gender affects non-employment patterns, with women displaying -on average- much shorter non-employment spells than men. The level of parental income does not significantly affect non-employment patterns,

but it is expected that protracted voluntary joblessness is affordable only to graduates with high parental income. On the contrary, extended periods of joblessness among graduates with low parental income are most likely to be involuntary.

As noted in the literature review, empirical labour market research has revealed the role of informal hiring channels and that of the family in providing job search assistance to its members. Sons and daughters are readily employed in the family business while the family networks are intensively mobilized to provide access to private and public sector jobs. The survey data indicate that 21% of the university graduates of the 1998-2000 cohorts who were employed 5-7 years after graduation had found their current job through family acquaintances or friends. Interestingly, the lower the parental income was, the higher the rate of those who found their job in this way was (with gender differences being insignificant in this respect). In addition, 1% of all employed graduates were working in family businesses as unpaid assistants and 8% of the graduates who were self-employed were continuing a family business. Finally, 54% of the self-employed declared that the family was the basic financial support for their business.

The survey also informs us on the methods of job search of the university graduates of the 1998-2000 cohorts who were unemployed 5-7 years after graduation. Table 10 reveals that 51% of them mobilize family and personal networks to find a job, men and women at equivalent rates but those with high

parental income more intensively than those with medium or low parental income. It is noteworthy that ads are the top job search method of university graduates and competitions are used as much as family and personal networks for access to jobs. The unemployed coming from a rich family background make more intensive use of all job search methods than those from a medium or poor, except for recourse to public employment services and references from employers and professors. Women are on average more active than men in job search, they sit much more frequently in competitions, have much more often recourse to public employment services, but have slightly lower rates than men in looking for a job through ads.

Table 10: Job search methods.

% of all unemployed looking for a job	*through:*	Low parental income	Medium parental income	High parental income
Family acquaintances/ friends		53.8	53.2	59.7
References by previous employers		3.2	2.8	1.5
References by professors		3.4	3.1	1.8
Competitions		47.1	51.7	57.4
Ads		69.2	68.3	73.2
Public employment services (OAED)		32.0	28.6	15.3
Careers office		5.3	2.8	9.2
Other method/no answer		8.0	8.7	11.2
% of all unemployed looking for a job	*through:*	**Men**	**Women**	**Both sexes**
Family acquaintances/ friends		51.2	50.9	51.0
References by previous employers		1.3	2.9	2.3
References by professors		3.8	2.7	3.1
Competitions		39.8	57.0	51.0
Ads		67.0	65.3	65.9
Public employment services (OAED)		20.7	31.1	27.4
Careers office		3.0	3.7	3.4
Other method		15.7	11.0	12.6

By combining the findings of the survey presented in the last paragraphs, we arrive at the following paradox. Although the unemployed coming from high-income families make a relatively more intensive use of their family networks to find a job, a relatively higher rate of graduates coming from poor or medium-income families actually find a job by this means. To settle this paradox we have introduced in the first two of our regression models the three independent family background variables referred to in the third section of the paper. Regression analysis has shown that none of these variables is statistically significant. Namely, according to the regression results, neither the level of the graduate's parental income nor the educational attainment level of his/her father or parents have any significant effect on the odds of being employed vs. unemployed if active or the odds of being in permanent vs. temporary employment if dependent worker 5-7 years after graduation. If we make the hypothesis that the strength and density of family networks is positively associated with the level of parental income and educational attainment, it follows that it is not by this means that the social background affects the labour market integration of Greek university graduates.

Indeed, we have shown elsewhere (Karamessini 2008) that the impact of social origin on the labour market integration of Greek university graduates is indirect. Concretely, those coming from high-income families are more likely to be self-employed, to have accomplished post-graduate studies and finished their undergraduate studies earlier; those coming from more educated family backgrounds are more likely to have obtained a higher grade of degree and

accomplished post-graduate studies. All these attributes ensure a better quality of labour market integration for the socially privileged graduates. More importantly, we have also shown that the indirect impact of the social background starts before entry at university, through the choice of field of study, which is important for the future returns of investments in university education (Karamessini 2009b).

Taking into account the whole set of evidence presented above, we can advance a tentative answer to the aforementioned paradox. Although the less socially privileged university graduates possess a more limited 'social capital' than that available to those coming from more privileged social backgrounds, the former depend more than the latter on family and personal networks to find a permanent job, since the latter chiefly compete with the former on the basis of attributes that have a higher price in the labour market and can be obtained easier the more privileged is the family background.

6. Conclusions

Statistical analysis of the determinants of the main aspects of labour market integration of Greek university graduates 5-7 years after integration has revealed the positive or negative impact of several transition strategies (see Appendix for the overall results). Continuous work experience during undergraduate studies and participation to traineeship related to the curriculum

and organized by the university are strategies that increase the probability of being employed vs. unemployed 5-7 years after graduation.

On the contrary, participation to ALMP schemes after graduation decreases this probability. The latter is in fact a defensive and short-term strategy against unemployment which obstructs access to permanent employment by conveying a negative signal to firms. The incidence of all the aforementioned strategies is higher among female graduates than men while the lower the level of the graduates' parental income is, the more often these strategies are adopted.

The grade of the degree and post-graduate studies are positively associated with qualitative aspects of labour market integration. The former is associated with higher probabilities of holding a permanent job and a job that matches the content of studies, while the latter is associated with a higher probability of holding a well-paid job 5-7 years after graduation. The lower the graduates' parental income is, the lower the incidence of such strategies is, while women have a higher incidence of higher grades and men of post-graduate studies.

Job mobility positively affects the probabilities of being employed, but is negatively associated with the probability of being in permanent employment, highly paid and employed in a job matching the content of studies 5-7 years after graduation. It can thus be argued that job mobility in the early career of Greek university graduates is a predominantly involuntary phenomenon i.e. a defensive adjustment to the scarcity of jobs, rather than an active strategy to improve the quality of labour market integration. Given that job mobility decreases

with the level of parental income, it follows that the poorer the graduates' social origin, the greater their difficulties of integration. More than two years of joblessness between two employment spells makes access to a permanent job extremely difficult. However, it is more likely to find such a job by remaining jobless up to two years than by taking temporary jobs in the meantime. Women have -on average- much shorter non-employment spells than men.

In conclusion, female graduates and graduates with poor social origin give on average priority to access to employment and adopt more often the relevant strategies than male graduates and graduates of richer social origin. The latter pursue more often than the former strategies that give access to jobs of good quality. As regards gender differences, it should be underlined that women do not fully compensate with higher grades in the first degree their lower participation in post-graduate studies than men on average.

Women and graduates from privileged family backgrounds are more active in job search than men and graduates from less privileged backgrounds. Male and female job search patterns are dissimilar but men and women make use of family and personal networks at equivalent rates. On the contrary, graduates from privileged family backgrounds possess more social capital than those from less privileged ones, but the latter are more dependent than the former on informal hiring networks to find a permanent job.

The findings of the survey do not fully confirm the southern European pattern of labour market entry put forward by existing comparative research. In fact,

Greek university graduates are polarised between those with no/ low and those with medium/high job mobility and between those with short and those with long non-employment periods in their early careers. Namely, 46% of Greek university graduates belonging to the 1998-2000 cohorts comply with one the basic feature of this pattern i.e. low job mobility, and 37% with the other basic feature i.e. long job search. Five to seven years after graduation, young graduates have experienced three jobs in their work history on average and three out of ten four jobs or more. Additionally, more than half of them take a new job in up to six months after the end of the previous one. Admittedly, the Graduates' Survey 2005 does not provide any information on the character of job mobility (voluntary or involuntary) and joblessness spells (unemployment or inactivity) during the transition period. However, the evidence provided, and arguments developed here, suggest that in a context of soaring youth unemployment, long wait is a non-sustainable strategy for great numbers of each cohort of university graduates, especially those coming from poor family backgrounds. At the same time, high job mobility is indicative of the great difficulties faced by the most vulnerable members of each cohort in acceding to good jobs. Yet, only comparative research could improve our understanding of similarities and dissimilarities of transition strategies employed by university graduates in Southern Europe. This direction of further research is even more pertinent in times of economic crisis, growing unemployment, and continuing erosion of the employment and social model of these countries.

APPENDIX

Table: Logistic regression results.

DEPENDENT VARIABLES (odds)	Unemployed=0 Employed = 1		Temporary worker = 0 Permanent worker = 1	
EXPLANATORY VARIABLES	Beta	S.E.	Beta	S.E.
Sex *(woman)* *man*	1.204***	0.314		
Child *(yes)* *no*	0.512***	0.117		
Child (yes) by **sex** *(woman)*	-1.394***	0.324		
Grade of degree			0.133***	0.029
Work experience during undergraduate studies				
(continuous) *no experience/occasional*	-0.614***	0.133		
Traineeship during undergraduate studies (yes)	-0.369***	0.086		
Post-graduate studies *(yes)* *no*			0.189**	0.092
Participation to ALMP *(no)* *yes*	-0.466***	0.084		
Time lapse since graduation *(months)*	0.015***	0.004	0.016***	0.003
Number of jobs before current state	0.027***	0.003		
Number of jobs before current job			-0.054**	0.023
Joblessness prior to current job spell				
(more than 2 years) *up to 1 month*			0.436***	0.120
1-6 months			0.138	0.132
6-12 months			0.124	0.162
1-2 years			0.250*	0.149
Sector of employment and size of firm				
(private sector and firm with ≥50 employees)				
public sector			-0.449**	0.123
private sector and firm with <50 employees			-1.293**	0.129
Field of studies *(Law)*				
Humanities	-1.055***	0.425	-1.051***	0.354
Engineers	0.018	0.445	-0.587*	0.345
Economics and business	-0.710	0.433	0,152	0.374
Positive sciences	-0.445	0.437	-1.382***	0.346
Social and political sciences	-1.336***	0.432	-0.603*	0.362
Life and health sciences	-0.630	0.453	-2.147***	0.374
Agricultural and environmental sciences	-1.355***	0.438	-1.015***	0.390
Fine arts	0.162	0.553	0,292	0.643
Physical education and sports	-0.600	0.487	-0.979**	0.409
Constant	2.575***	0.519		
Hosmer and Lemeshow Test	6.103 (df 8)	Sig. 0.636	8.602 (df 8)	Sig. 0.377
Cox and Snell R square	0.044		0.287	
Nagelkerke R square	0.111		0.39	
Correct classifications	93.0%		74.5%	
Number of observations	10,436		3,140	

Table: Logistic regression results (cont.)

DEPENDENT VARIABLES (odds)	Wages ≤1,100€ = 0 Wages > 1,100€ = 1	
EXPLANATORY VARIABLES	Beta	S.E.
Sex *(woman)*		
man	0.398***	0.065
Age	0.112***	0.010
Work experience during undergraduate studies *(continuous)*		
no experience/occasional	-0.527***	0.084
Post-graduate studies *(yes)*		
no	-0.363***	0.063
Number of jobs before current job	-0.065***	0.019
Full-time worker *part-time worker*	-1.371***	0.135
Type of contract *(permanent)*		
temporary	-0.284***	0.075
Sector of employment and size of firm *(private sector and firm with ≥50 employees)*		
public sector	-0.712***	0.080
private sector and firm with <50 employees	-0.596***	0.088
Job matching with studies *(full match)*		
no match	-0.727***	0.104
little match	-0.516***	0.097
rather good match	-0.290***	0.076
Field of studies *(Law)*		
Humanities	-3.240***	0.313
Engineers	-1.240***	0.319
Economics and business	-2.761***	0.316
Positive sciences	-2.471***	0.324
Social and political sciences	-2.747***	0.322
Life and health sciences	-1.861***	0.342
Agricultural and environmental sciences	-2.564***	0.334
Fine arts	-3.697***	0.386
Physical education and sports	-2.999***	0.382
Hosmer and Lemeshow Test	6.074 (df 8)	Sig. 0.639
Cox and Snell R square	0.298	
Nagelkerke R square	0.397	
Correct classification	74.6%	
Number of observations	6,456	

Notes: 1. S.E. = Standard Error; 2. Reference categories in parentheses; 3. Level of statistical significance: *=0.10, **=0.05, ***=0.01. **Non-significant variables:** 1st model: parental income, father's and parental education, grade of degree, post-graduate studies; 2nd model: sex, parental income, father's and parental education, participation to traineeship or work experience during undergraduate studies, participation to ALMP after graduation; 3rd model: parental income, father's and parental education, grade of degree.

References

G = in Greek

Arrow K. (1973), Higher Education as a Filter, *Journal of Public Economics,* 2 (3), 193-216.

Becker G. (1964), *Human Capital. A Theoretical and Empirical Analysis with Special Reference to Education*, 3rd edition 1993, Chicago and London: The University of Chicago Press.

Beduwé C. and Cahuzac E. (1997), Première expérience professionnelle avant le diplôme. Quelle insertion pour les étudiants de second cycle universitaire ?, *Formation Emploi,* 58, pp. 89-108.

Beduwé C. and Giret J.-F. (2001), Le travail en cours d'études a-t-il un effet sur l'insertion professionnelle ? *Formation Emploi,* 73, pp. 31-51.

Bison I. and Esping-Andersen G. (2000), in D. Gallie and S. Paugam (eds.), *Welfare Regimes and the Experience of Unemployment in Europe,* Oxford: Oxford University Press.

Bourdieu P. (1973), «Cultural Reproduction and Social Reproduction», in R. Brown (ed.), *Knowledge, Education and Cultural Change,* London: Tavistock.

Bowles S. and H. Gintis (1973), *Schooling in Capitalist America*, London: Routledge and Kegan Paul.

Blanchflower, David G. and Richard B. Freeman (2000), "The Declining Economic Status of Young Workers in OECD Countries", in D. Blanchflower and R. Freeman (eds.), *Youth Employment and Joblessness in Advanced Countries,* Chicago and London: The University of Chicago Press.

Couppié T. and Mansuy M. (2004), L'insertion professionnelle des débutants en Europe : des situations contrastées, *Economie et Statistique*, 378-379, pp. 147-165.

Doeringer P.and Piore M. (1971), *Internal Labor Markets and Manpower Analysis,* Massachusetts: Lexington.

Gangl M. (2001), European Patterns of Labour Market Entry. A dichotomy of occupationalized vs. non-occupationalized Systems?" *European Societies,* 3, 4, pp. 471-494.

Gangl M. (2003), The Only Way is Up? Employment Protection and Job Mobility among Recent entrants to European Labour Markets, *European Sociological Review,* 19, 5, 429-449.

Garonna P. et Ryan P. (1989), Le travail des jeunes, les relations professionnelles et les politiques sociales dans les économies avancées, *Formation Emploi,* 25, pp. 78-94.

Granovetter M. (1992), Economic Institutions as Social Constructions: A Framework of Analysis, *Acta Sociologica,* 35 (1), 3-11.

Heckman J. and G. Borjas (1980), Does Unemployment Cause Future Unemployment? Definitions, Questions and Answers from a Continuous Time Model of Heterogeneity and State Dependence, *Economica,* New Series, 47 (187)*,* Special Issue on Unemployment, pp. 247-283.

Jovanovic B. (1979), Job Matching and Theory of Turnover, *Journal of Political Economy,* 87 (5), 972-990.

Jovanovic B. (1984), Matching, Turnover and Unemployment, *Journal of Political Economy,* 92 (1), 108-122.

Kanellopoulos K., Mavromaras K. and Mitrakos T. (2003), *Education and the Labour Market,* Athens: KEPE (G).

Karamessini M. (2008), *The absorption of university graduates in the labour market,* Athens: Network of the Career Offices of Universities and Dionicos. (G)

Karamessini M. (2009a), Transition from higher education to work: Gender differences in employment outcomes of university graduates in Greece, paper presented at the *International Association for Feminist Economics 2009 Annual Conference*, Boston Mass., USA, June 26-28, 2009, Available online at: https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=IAFFE2009&paper_id=69 .

Karamessini M. (2009b), Social origin, field of study and labour market integration of university graduates in the Greek labour market, *Comparative and International Education Review,* 11-12, 107-128. (G)

Lévy-Garboua L. (1979), "Education, origine social and distribution des gains", in J.-C. Eicher and L. Lévy-Garboua (éd.), *Economique de l'éducation,* Paris: Economica.

Liagouras G., Protogerou A. and Kalogirou Y. (2003), Exploring Mismatches Between Higher Education and the Labour Market in Greece, *European Journal of Education,* 38, 4, pp. 413-26.

Lydall H. (1979), *A Theory of Income Distribution*, Oxford: Clarendon Press.

Marsden D. (1986), *The End of Economic Man? Custom and Competition in Labour Markets,* Brighton: Wheatsheaf.

Marsden D. (1990), Institutions and Labour Mobility: Occupational and Internal Labour Markets in Britain, France, Italy and West Germany, in R. Brunetta and Carlo Dell'Aringa (eds.), *Labour Relations and Economic Performance,* Basingstoke, Hampshire: Macmillan (pp. 414-38).

Moncel N. (2001), Gestion sectorielle de la main-d'oeuvre et insertion des débutants dans les années 90, *Formation Emploi,* 75, pp. 43-57.

Passeron J.-C. (1982), "L'inflation des diplômes: remarques sur l'usage de quelques concepts analogiques en sociologie", *Revue Française de Sociologie,* 23, pp. 551-584.

Patrinos H. A. (1995), Socioeconomic Background, Schooling, Experience, Ability and Monetary Rewards in Greece, *Economics of Education Review,* 14, 1, pp. 85-91.

Phelps E.S. (1972), The Statistical Theory of Racism and Sexism, *American Economic Review* 62, 659-661.

Roksa J. (2005), Double Disadvantage or Blessing in Disguise? Understanding the Relationship between College Major and Employment Sector, *Sociology of Education,* vol. 78, no. 3, pp. 207-232.

Ryan P. (2001), The School-to-Work Transition: A Cross-National Perspective, *Journal of Economic Literature,* Vol. XXXIX, pp. 34-92.

Shavit Y. and W. Müller (1998), *From School to Work. A Comparative Study of Educational Qualifications and Occupational Destinations,* Oxford: Oxford University Press, pp. 1-48.

Sherer S. (2005), Patterns of Labor Market Entry – Long Wait or Career Instability? An Empirical Comparison of Italy, Great Britain and West Germany, *European Sociological Review,* 21, 5, pp. 427-40.

Sicherman N. and Galor O. (1990), A Theory of Career Mobility, *Journal of Political Economy* 98 (1), 169-192.

Spence A. M. (1974), *Market Signaling: Informational Transfer in Hiring and Related Processes,* Cambridge: Harvard University Press.

Stiglitz J. (1975), The theory of 'screening', education and the distribution of income, *American Economic Review,* 65, 283-300.

Theodossiou, I. (2002), Factors Affecting the Job-to-joblessness Turnover and Gender, *Labour,* 16 (4), 729-746.

Thomaidou F., Kikilias E., Mitrakos T., Politis T., Tsakloglou P., Holezas I. (2009), *Study of the Employment of Higher Education Graduates in Greece,* Athens: Cultural and Development Initiative. (G)

Thurow L. C. (1975), *Generating Inequality: Mechanisms of Distribution in U.S. Economy,* Basic Books.

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