School-to-work transitions in Europe: Speed of convergence to permanent employment

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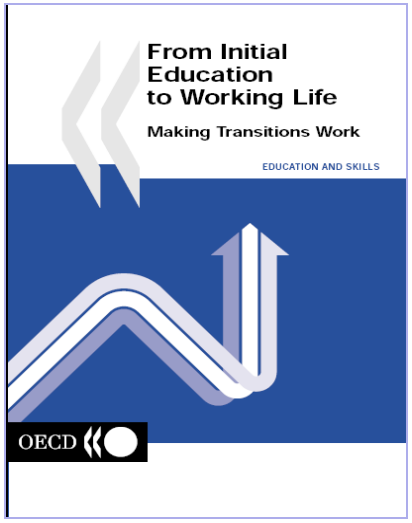
Background



- In a context of intensive and global economic competition, Europe is growingly concerned with the consequences of increasing numbers of young people temporarily or permanently prevented from entering the job market and the difficulties faced by graduates to find adequate employment.

- The transition from school to work represents a central stage in the lives of individuals and a key policy topic in many Countries.

Background

- Two aspects of the transition process from school to permanent employment are relevant at an individual level as well as at a policy level:
  - the labour market status of young people (i.e. in education, inactive, unemployed, in fixed-term employment or in permanent employment);
  - the time spent at each state.
- The first aspect is of interest because it provides static information about the occupational stability of a person after he/she has left the educational system while the second one gives a dynamic description of the transition process from school to permanent occupation.

Research questions

Understanding mobility dynamics on the European labor market by identifying potential discriminatory paths in the transition from education to permanent employment:

- Among graduates, who transits faster to permanent employment?
- Is the transition faster for the higher skilled?
- Is it faster for men than for women?
- Is it faster for those graduating from vocationally oriented programmes?

Institutional framework

The character of the national institutional framework influences the speed of school-to-work transitions as well as people chances to move from short-term jobs to a more permanent work.

(i.e. Muller and Gangl, 2003; Riphahn, 2002; Contini et al., 1999)

- The literature distinguishes between three main different school-to-work transitional regimes:
  - **The occupational labour markets systems (OLM) (e.g., German dual system) (Marsden, 1986, 1999)**
  - **The institutional labour markets systems (ILM) (e.g., GB and France) (ibid.)**
  - **The Mediterranean model (Cavalli and Galland, 1995)**
- Other factors include labour market conditions, including employment protection legislation (Wolbers, 2007; Schere, 2005; Gangl, 2003)

Two Econometric Models

Speed of transition

Survival model:

• We are interested in the **time** (measured in terms of number of years) taken for an individual aged 16-30 to obtain a permanent contract after leaving education for the last time (proxied as the year in which the individual completed its highest ISCED level).

• Our period of observation is **4 years** (1994-1997 and 1998-2001).

Paths of transition

Continuous-time Markov chain:

• We are interested in capturing the movements of 16-30 years old between different states and estimate the number of spells needed for an individual to reach a permanent contract.

• Our period of observation is **4 years** (1994-1997 and 1998-2001).

• We assume that individuals transit independently and non-sequentially between 5 possible transition states:

– education
– inactivity
– unemployment
– fixed-term/temporary contract
– permanent contract

Data

Data are drawn from the longitudinal European Community Household Panel (ECHP).

We restricted our attention to:

- two subsamples of individuals aged 16 to 30 in 1994 or 1998 that could be followed over a 4 year period starting respectively from 1994 and 1998
- that by the end of the observation period had left the education and training system at least once;

We obtain two fully balanced panels:

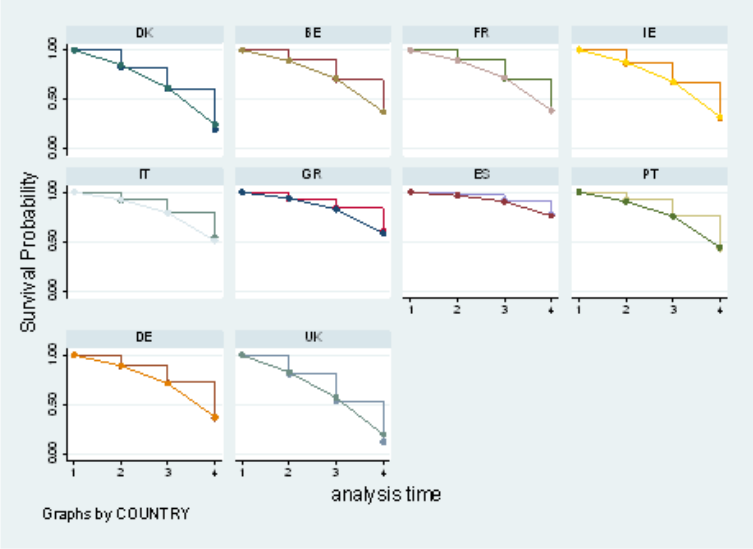
- the first covers the period 1994-1997 and includes 17,759 individuals (71,036 observations) from 11 EU countries;
- the second covers the period 1998-2001 and consists of 18,887 individuals (75,508 observations) from 13 EU countries.

Results: Cox Proportionate Hazard Model

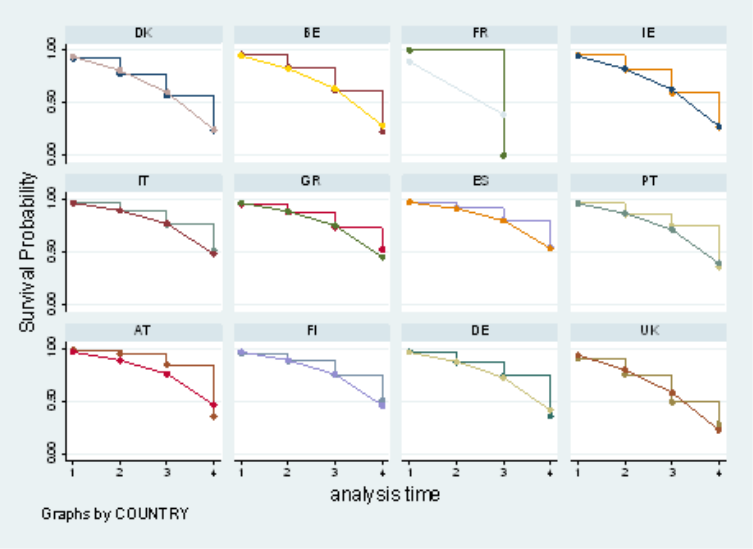
	Panel 1994-1997		Panel 1998-2001	
	No interactions	Interactions[a]	No interactions	Interactions[a]
Time non-varying covariates				
Female	-0.399**	0.361	-0.0866	-0.232
	(-2.90)	(1.20)	(-0.77)	(-1.05)
Level of education	-0.0522	-0.0409	-0.165	-0.154
	(-0.50)	(-0.38)	(-1.75)	(-1.59)
Type of education: vocational	0.000263	0.00485	0.460***	0.456***
	(0.00)	(0.03)	(3.45)	(3.39)
Time varying covariates				
Experience on the labour market	0.0297*	0.0256	0.0756***	0.0717***
	(2.02)	(1.50)	(5.25)	(4.72)
Experience on the labour market square	-0.00124	-0.000953	-0.00373	-0.00384***
	(-1.35)	(-0.95)	(-4.45)	(-4.53)
Companion	0.0625	0.161*	-0.00773	0.0391
	(1.12)	(2.18)	(-0.17)	(0.56)
Satisfaction with health	-0.0117	-0.0140	-0.0106	-0.0141
	(-0.38)	(-0.43)	(-0.42)	(-0.55)
Satisfaction with work	0.0398*	0.0401*	0.0228	0.0218
	(2.35)	(2.35)	(1.28)	(1.24)
Satisfaction with financial situation	0.0479	0.0494*	0.0324	0.0335
	(2.37)	(2.36)	(1.84)	(1.89)
Children looked after on regular basis	-0.106*	0.0375	-0.00417	-0.0525
	(-2.23)	(0.56)	(-0.10)	(-0.94)
Share of temporary contracts	-0.00982***	-0.00986***	-0.00954***	-0.00986***
	(-4.07)	(-3.84)	(-3.33)	(-3.43)
Total youth employment	0.00260	0.00237	-0.00393*	-0.00380*
	(1.69)	(1.56)	(-2.50)	(-2.39)
Individuals	887	887	1223	1223

Results by country

Panel 1994-1997

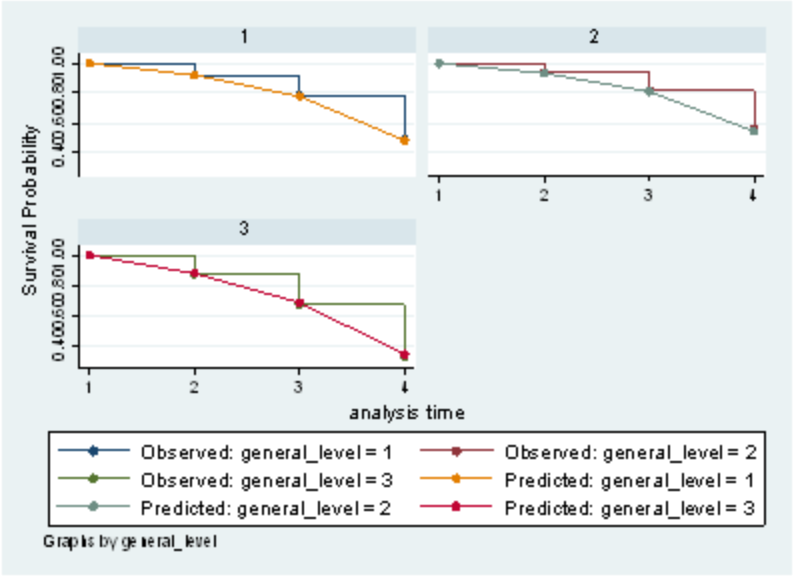


Panel 1998-2001

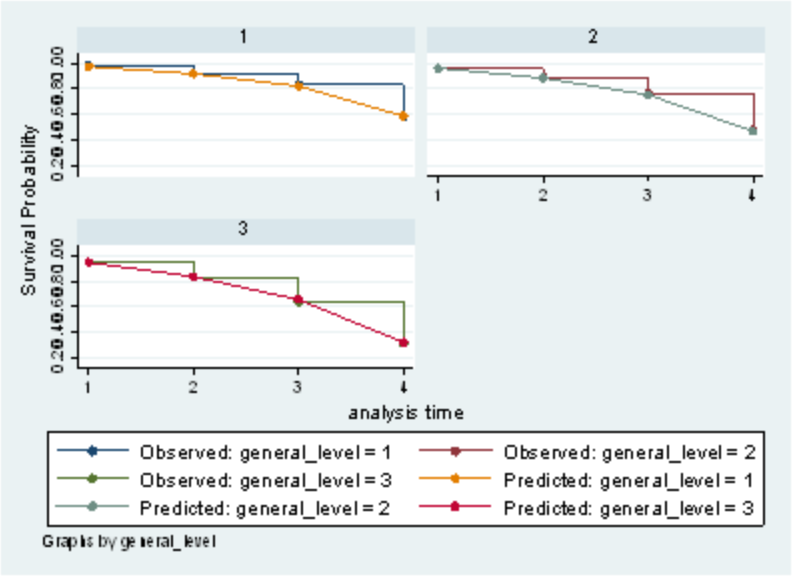


Results by educational level

Panel 1994-1997

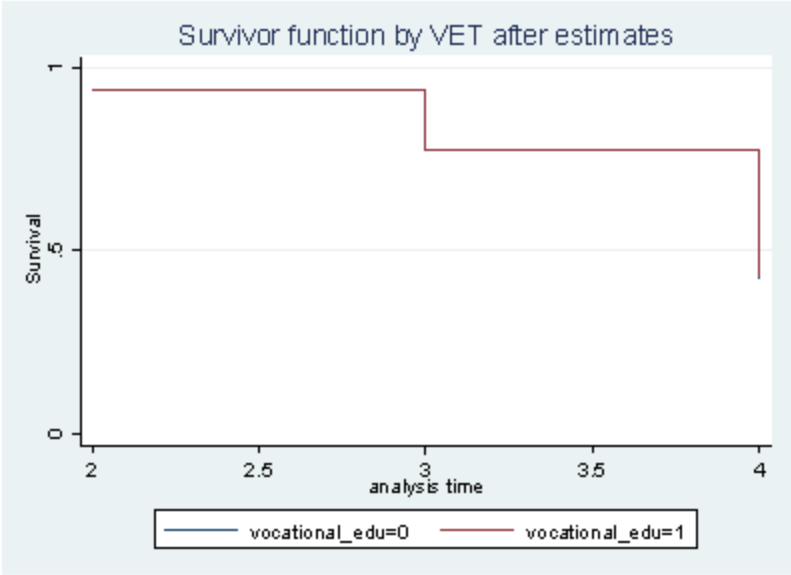


Panel 1998-2001

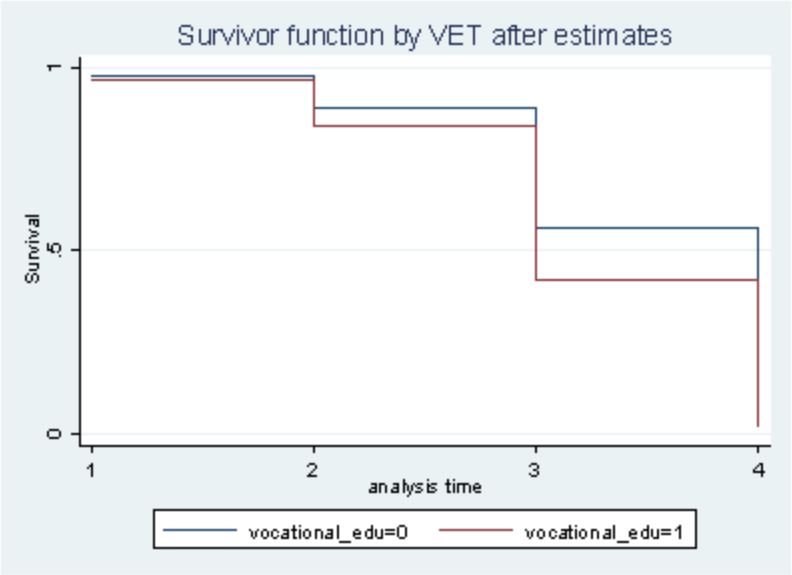


Results by VET

Panel 1994-1997

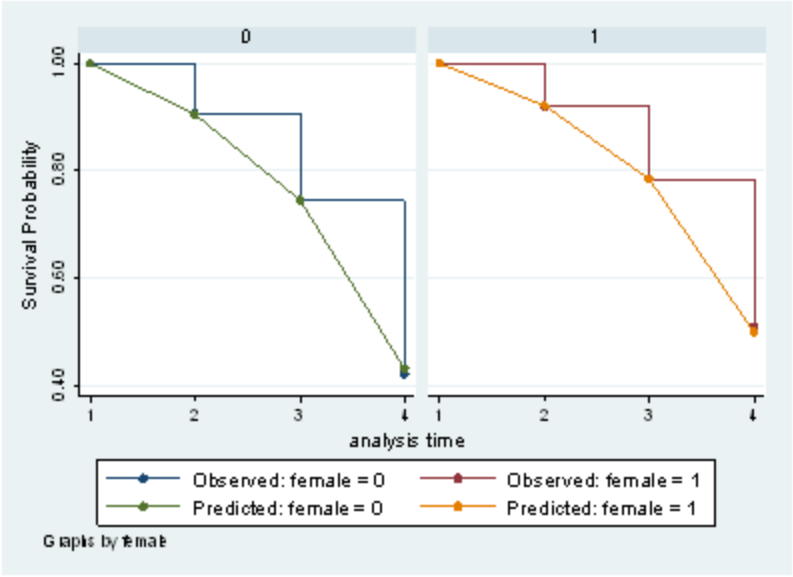


Panel 1998-2001

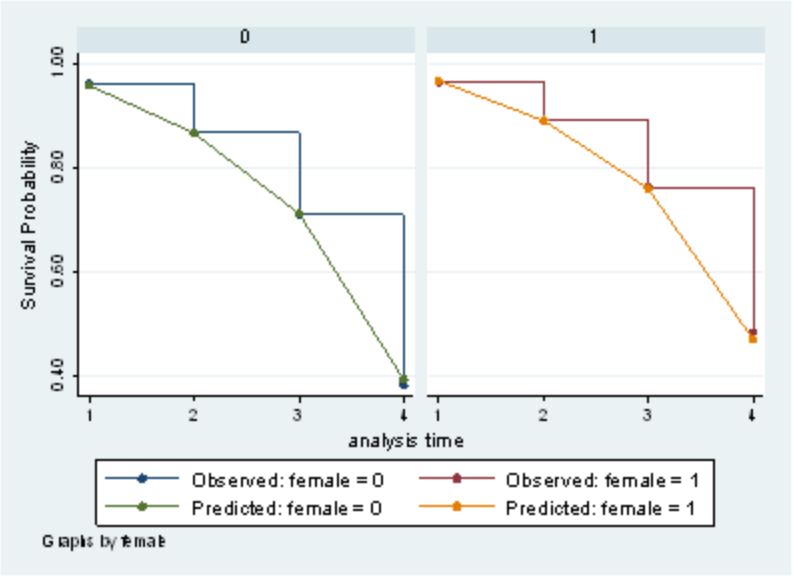


Results by gender

Panel 1994-1997



Panel 1998-2001



Overall Result from Survival Model

Average duration of the transition from education to permanent employment (weighted)

Variable	Cohort	Obs	Mean	Std.Dev.	Min	Max
Time	1994-1997	887	3	0.815	2	4
	1998-2001	1223	2.46	1.09	1	4

Does this overall reduction of the duration of transition imply a more straightforward path?

⇒ Answer is given from the continuous-time Markov chain

Results: Continuous-time Markov Model

How many spells does it take on average for a young graduate to transit to permanent employment?

Panel 1994-1997

Country	Obs	Mean	Std.Dev.	Min	Max
FULL SAMPLE*	887	1.471251	0.859824	0	3
DK	3072	1.330729	0.725401	0	3
BE	5176	1.305255	0.69584	0	3
FR	2616	1.136086	0.779163	0	3
IE	6188	1.186167	0.749283	0	3
IT	4440	1.114414	0.819051	0	3
GR	13512	1.176732	0.874899	0	3
ES	6944	1.097926	0.916302	0	3
PT	9772	1.259517	0.897458	0	3
ES	7468	1.175683	0.801891	0	3
DE	9304	1.280739	0.747543	0	3
UK	7016	1.206956	0.745191	0	3

Note: (*) Full sample weighted

Panel 1998-2001

Country	Obs	Mean	Std.Dev.	Min	Max
FULL SAMPLE*	1223	1.162715	0.961033	0	3
DK	2380	0.981513	0.917621	0	3
NL	3868	0.875905	0.900024	0	3
BE	2148	0.811918	0.830266	0	3
FR	4584	0.820244	0.911042	0	3
IE	3220	0.961491	0.963971	0	3
IT	10720	0.925373	0.926655	0	3
GR	5780	0.885813	0.937633	0	3
ES	8820	1.195465	0.956416	0	3
PT	8368	0.904876	0.898871	0	3
AT	3896	0.75462	0.857709	0	3
FI	2956	1.11502	0.940334	0	3
DE	7820	0.977494	0.926237	0	3
UK	6476	0.744904	0.937143	0	3

Note: (*) Full sample weighted

What is the probability of transiting directly to Perm. Empl.? Results from ILM regime (UK)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.454333 & 0.0861667 & 0.0783333 & 0.180167 & 0.1175 \\ 0.0313333 & -0.203667 & 0.0235 & 0.047 & 0.094 \\ 0.0235 & 0.148833 & -0.423 & 0.101833 & 0.156667 \\ 0.0156667 & 0.047 & 0.0391667 & -0.618833 & 0.517 \\ 0.00626667 & 0.0313333 & 0.0235 & 0.0235 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.19 & 0.17 & 0.39 & 0.25 \\ 0.16 & 0. & 0.12 & 0.24 & 0.48 \\ 0.05 & 0.35 & 0. & 0.24 & 0.36 \\ 0.03 & 0.08 & 0.06 & 0. & 0.84 \\ 0.07 & 0.37 & 0.28 & 0.28 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.4465 & 0.0783333 & 0.101833 & 0.109667 & 0.156667 \\ 0.0548333 & -0.282 & 0.0235 & 0.0861667 & 0.1175 \\ 0.0626667 & 0.0861667 & -0.556167 & 0.141 & 0.274167 \\ 0.047 & 0.047 & 0.0235 & -0.611 & 0.4935 \\ 0.0156667 & 0.0313333 & 0.0313333 & 0.0391667 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.18 & 0.23 & 0.25 & 0.35 \\ 0.19 & 0. & 0.08 & 0.31 & 0.42 \\ 0.11 & 0.15 & 0. & 0.25 & 0.49 \\ 0.08 & 0.08 & 0.04 & 0. & 0.81 \\ 0.13 & 0.27 & 0.27 & 0.33 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.5405 & 0.0861667 & 0.101833 & 0.148833 & 0.2115 \\ 0.00783333 & -0.266333 & 0.0235 & 0.0626667 & 0.172333 \\ 0.0313333 & 0.0705 & -0.548333 & 0.172333 & 0.274167 \\ 0.00783333 & 0.0313333 & 0.0156667 & -0.5875 & 0.524833 \\ 0.00783333 & 0.0313333 & 0.00783333 & 0.0235 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.16 & 0.19 & 0.27 & 0.39 \\ 0.03 & 0. & 0.09 & 0.24 & 0.65 \\ 0.06 & 0.13 & 0. & 0.31 & 0.5 \\ 0.01 & 0.05 & 0.03 & 0. & 0.91 \\ 0.11 & 0.44 & 0.11 & 0.33 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.4935 & 0.109667 & 0.0235 & 0.227167 & 0.133167 \\ 0.0156667 & -0.180167 & 0.0391667 & 0.0156667 & 0.109667 \\ 0.0235 & 0.219333 & -0.517 & 0.0235 & 0.242833 \\ 0. & 0.0626667 & 0.0626667 & -0.524833 & 0.407333 \\ 0.0047 & 0.0391667 & 0.0235 & 0.0235 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.22 & 0.05 & 0.46 & 0.27 \\ 0.09 & 0. & 0.22 & 0.09 & 0.61 \\ 0.05 & 0.43 & 0. & 0.05 & 0.48 \\ 0. & 0.12 & 0.12 & 0. & 0.76 \\ 0.05 & 0.43 & 0.26 & 0.26 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.438667 & 0.133167 & 0. & 0.148833 & 0.148833 \\ 0.0548333 & -0.282 & 0.0235 & 0.0626667 & 0.148833 \\ 0.047 & 0.297667 & -0.485667 & 0.101833 & 0.047 \\ 0.1175 & 0.0548333 & 0.0548333 & -0.407333 & 0.188 \\ 0.00783333 & 0.047 & 0.0156667 & 0.047 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.31 & 0. & 0.35 & 0.35 \\ 0.19 & 0. & 0.08 & 0.22 & 0.51 \\ 0.1 & 0.6 & 0. & 0.21 & 0.1 \\ 0.28 & 0.13 & 0.13 & 0. & 0.45 \\ 0.07 & 0.4 & 0.13 & 0.4 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.532667 & 0.141 & 0.0548333 & 0.109667 & 0.235 \\ 0.0391667 & -0.360333 & 0.0235 & 0.0783333 & 0.219333 \\ 0.047 & 0.133167 & -0.595333 & 0.0705 & 0.344667 \\ 0.0313333 & 0.0626667 & 0.0156667 & -0.415167 & 0.3055 \\ 0.00783333 & 0.0235 & 0.00783333 & 0.0313333 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.26 & 0.1 & 0.2 & 0.43 \\ 0.11 & 0. & 0.07 & 0.22 & 0.61 \\ 0.08 & 0.22 & 0. & 0.12 & 0.58 \\ 0.08 & 0.15 & 0.04 & 0. & 0.74 \\ 0.11 & 0.33 & 0.11 & 0.44 & 0. \end{pmatrix}$

What is the probability of transiting directly to Perm. Empl.? Results from OLM regime (DE)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.462167 & 0.141 & 0.0548333 & 0.188 & 0.0783333 \\ 0.0235 & -0.235 & 0.0626667 & 0.0783333 & 0.0705 \\ 0.0391667 & 0.133167 & -0.509167 & 0.148833 & 0.180167 \\ 0.0235 & 0.0626667 & 0.0705 & -0.438667 & 0.282 \\ 0.00626667 & 0.0235 & 0.0548333 & 0.0548333 & -0.141 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.31 & 0.12 & 0.41 & 0.17 \\ 0.1 & 0. & 0.27 & 0.33 & 0.3 \\ 0.08 & 0.27 & 0. & 0.3 & 0.36 \\ 0.05 & 0.14 & 0.16 & 0. & 0.64 \\ 0.04 & 0.17 & 0.39 & 0.39 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.3995 & 0.0313333 & 0.047 & 0.1645 & 0.1645 \\ 0.0391667 & -0.313333 & 0.0548333 & 0.0783333 & 0.133167 \\ 0.0626667 & 0.0861667 & -0.509167 & 0.156667 & 0.203667 \\ 0.0235 & 0.0548333 & 0.0313333 & -0.564 & 0.454333 \\ 0.00783333 & 0.0156667 & 0.0235 & 0.0548333 & -0.101833 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.08 & 0.12 & 0.4 & 0.4 \\ 0.13 & 0. & 0.18 & 0.26 & 0.44 \\ 0.12 & 0.17 & 0. & 0.31 & 0.4 \\ 0.04 & 0.1 & 0.06 & 0. & 0.81 \\ 0.08 & 0.15 & 0.23 & 0.54 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.6815 & 0.0548333 & 0.156667 & 0.313333 & 0.156667 \\ 0.0235 & -0.297667 & 0.0235 & 0.109667 & 0.148833 \\ 0.0626667 & 0.094 & -0.6345 & 0.2115 & 0.274167 \\ 0.282 & 0.0235 & 0.0235 & -0.485667 & 0.430833 \\ 0. & 0.00783333 & 0.00783333 & 0.0548333 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.08 & 0.23 & 0.46 & 0.23 \\ 0.08 & 0. & 0.08 & 0.36 & 0.48 \\ 0.1 & 0.15 & 0. & 0.33 & 0.43 \\ 0.37 & 0.03 & 0.03 & 0. & 0.57 \\ 0. & 0.11 & 0.11 & 0.78 & 0. \end{pmatrix}$
VET	$\begin{pmatrix} -0.564 & 0.0156667 & 0.172333 & 0.133167 & 0.250667 \\ 0.391667 & -0.783333 & 0. & 0.391667 & 0. \\ 0.156667 & 0.0548333 & -0.524833 & 0.156667 & 0.156667 \\ 0.0235 & 0.047 & 0.0861667 & -0.3525 & 0.195833 \\ 0.047 & 0.00783333 & 0.0156667 & 0.0391667 & -0.109667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.03 & 0.3 & 0.26 & 0.44 \\ 0.5 & 0. & 0. & 0.5 & 0. \\ 0.3 & 0.1 & 0. & 0.3 & 0.3 \\ 0.07 & 0.13 & 0.24 & 0. & 0.56 \\ 0.43 & 0.07 & 0.14 & 0.36 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.329 & 0.047 & 0.0235 & 0.219333 & 0.0313333 \\ 0.0235 & -0.2115 & 0.0548333 & 0.0705 & 0.0548333 \\ 0.047 & 0.0861667 & -0.485667 & 0.203667 & 0.141 \\ 0.0235 & 0.0235 & 0.0391667 & -0.148833 & 0.0626667 \\ 0.00313333 & 0.0235 & 0.0548333 & 0.0861667 & -0.1645 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.07 & 0.68 & 0.1 \\ 0.12 & 0. & 0.27 & 0.35 & 0.27 \\ 0.1 & 0.18 & 0. & 0.43 & 0.3 \\ 0.16 & 0.16 & 0.26 & 0. & 0.42 \\ 0.02 & 0.14 & 0.33 & 0.51 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.344667 & 0.0626667 & 0.0391667 & 0.148833 & 0.094 \\ 0.094 & -0.383833 & 0.0861667 & 0.1175 & 0.0861667 \\ 0.0548333 & 0.0783333 & -0.532667 & 0.195833 & 0.2115 \\ 0.0391667 & 0.0705 & 0.047 & -0.360333 & 0.203667 \\ 0.0705 & 0.0705 & 0.0235 & 0.0861667 & -0.125333 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.18 & 0.11 & 0.43 & 0.27 \\ 0.24 & 0. & 0.22 & 0.31 & 0.22 \\ 0.1 & 0.14 & 0. & 0.36 & 0.39 \\ 0.11 & 0.2 & 0.13 & 0. & 0.57 \\ 0.28 & 0.28 & 0.09 & 0.34 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.5405 & 0.0313333 & 0.094 & 0.329 & 0.094 \\ 0.0235 & -0.603167 & 0.047 & 0.227167 & 0.3055 \\ 0.0705 & 0.141 & -0.430833 & 0.0705 & 0.141 \\ 0.0235 & 0.0626667 & 0.0156667 & -0.3055 & 0.195833 \\ 0.00783333 & 0.00783333 & 0.00783333 & 0.0783333 & -0.094 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.06 & 0.17 & 0.6 & 0.17 \\ 0.04 & 0. & 0.08 & 0.38 & 0.51 \\ 0.17 & 0.33 & 0. & 0.17 & 0.33 \\ 0.08 & 0.21 & 0.05 & 0. & 0.66 \\ 0.08 & 0.08 & 0.08 & 0.77 & 0. \end{pmatrix}$
VET	$\begin{pmatrix} -0.665833 & 0.00783333 & 0.141 & 0.3525 & 0.1645 \\ 0. & -0.391667 & 0. & 0.391667 & 0. \\ 0.227167 & 0.109667 & -0.618833 & 0.227167 & 0.0548333 \\ 0.0313333 & 0.0313333 & 0.0548333 & -0.235 & 0.125333 \\ 0. & 0.00783333 & 0.0156667 & 0.047 & -0.0783333 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.01 & 0.21 & 0.53 & 0.25 \\ 0. & 0. & 0. & 1. & 0. \\ 0.37 & 0.18 & 0. & 0.37 & 0.09 \\ 0.13 & 0.13 & 0.23 & 0. & 0.52 \\ 0. & 0.11 & 0.22 & 0.27 & 0. \end{pmatrix}$

What is the probability of transiting directly to Perm. Empl.? Results from Mediterranean regime (IT)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.407333 & 0.0626667 & 0.274167 & 0.0548333 & 0.0235 \\ 0.0156667 & -0.203667 & 0.109667 & 0.0548333 & 0.0313333 \\ 0.0313333 & 0.094 & -0.282 & 0.109667 & 0.0548333 \\ 0.00783333 & 0.0313333 & 0.0861667 & -0.391667 & 0.266333 \\ 0.00156667 & 0.0156667 & 0.0313333 & 0.0783333 & -0.133167 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.66 & 0.13 & 0.06 \\ 0.07 & 0. & 0.52 & 0.26 & 0.15 \\ 0.11 & 0.32 & 0. & 0.38 & 0.19 \\ 0.02 & 0.08 & 0.22 & 0. & 0.68 \\ 0.01 & 0.12 & 0.25 & 0.62 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.423 & 0.0626667 & 0.227167 & 0.0861667 & 0.0391667 \\ 0.0548333 & -0.3525 & 0.125333 & 0.101833 & 0.0783333 \\ 0.0548333 & 0.0705 & -0.297667 & 0.109667 & 0.0626667 \\ 0.0235 & 0.0235 & 0.047 & -0.430833 & 0.336833 \\ 0.0391667 & 0.0156667 & 0.0156667 & 0.0861667 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.55 & 0.21 & 0.09 \\ 0.15 & 0. & 0.35 & 0.28 & 0.22 \\ 0.18 & 0.24 & 0. & 0.37 & 0.21 \\ 0.05 & 0.05 & 0.11 & 0. & 0.78 \\ 0.25 & 0.1 & 0.1 & 0.55 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.462167 & 0.0626667 & 0.203667 & 0.141 & 0.0626667 \\ 0.0783333 & -0.4935 & 0.180167 & 0.180167 & 0.0548333 \\ 0.0548333 & 0.0705 & -0.376 & 0.172333 & 0.0626667 \\ 0.0391667 & 0.0156667 & 0.0235 & -0.423 & 0.336833 \\ 0. & 0.0156667 & 0.00783333 & 0.094 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.13 & 0.43 & 0.3 & 0.13 \\ 0.16 & 0. & 0.37 & 0.37 & 0.11 \\ 0.15 & 0.2 & 0. & 0.48 & 0.17 \\ 0.09 & 0.04 & 0.06 & 0. & 0.81 \\ 0. & 0.13 & 0.07 & 0.8 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.242833 & 0.047 & 0.133167 & 0.0313333 & 0.0313333 \\ 0.00783333 & -0.148833 & 0.0783333 & 0.0391667 & 0.0156667 \\ 0.0156667 & 0.101833 & -0.289833 & 0.1175 & 0.0626667 \\ 0.00156667 & 0.0313333 & 0.0783333 & -0.2585 & 0.148833 \\ 0. & 0.0156667 & 0.0235 & 0.0861667 & -0.125333 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.19 & 0.55 & 0.13 & 0.13 \\ 0.06 & 0. & 0.56 & 0.28 & 0.11 \\ 0.05 & 0.34 & 0. & 0.39 & 0.21 \\ 0.01 & 0.12 & 0.3 & 0. & 0.57 \\ 0. & 0.13 & 0.19 & 0.69 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.336833 & 0.0548333 & 0.133167 & 0.109667 & 0.047 \\ 0.0391667 & -0.289833 & 0.1175 & 0.0783333 & 0.047 \\ 0.047 & 0.0705 & -0.297667 & 0.109667 & 0.0783333 \\ 0.0235 & 0.0235 & 0.0626667 & -0.282 & 0.180167 \\ 0.00783333 & 0.00783333 & 0.0156667 & 0.0705 & -0.101833 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.16 & 0.39 & 0.32 & 0.14 \\ 0.14 & 0. & 0.42 & 0.28 & 0.17 \\ 0.15 & 0.23 & 0. & 0.36 & 0.26 \\ 0.08 & 0.08 & 0.22 & 0. & 0.62 \\ 0.08 & 0.08 & 0.15 & 0.69 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.618833 & 0.0705 & 0.321167 & 0.141 & 0.094 \\ 0.0391667 & -0.4465 & 0.125333 & 0.172333 & 0.109667 \\ 0.0548333 & 0.047 & -0.329 & 0.148833 & 0.0783333 \\ 0.00783333 & 0.0235 & 0.0235 & -0.219333 & 0.172333 \\ 0.00783333 & 0.0235 & 0.0235 & 0.0861667 & -0.141 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.11 & 0.51 & 0.22 & 0.15 \\ 0.09 & 0. & 0.28 & 0.39 & 0.25 \\ 0.17 & 0.14 & 0. & 0.45 & 0.24 \\ 0.03 & 0.1 & 0.1 & 0. & 0.76 \\ 0.06 & 0.17 & 0.17 & 0.61 & 0. \end{pmatrix}$

Where do those who do not transit directly to Perm. Empl. go? Results from ILM regime (UK)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.454333 & 0.0861667 & 0.0783333 & 0.180167 & 0.1175 \\ 0.0313333 & -0.203667 & 0.0235 & 0.047 & 0.094 \\ 0.0235 & 0.148833 & -0.423 & 0.101833 & 0.156667 \\ 0.0156667 & 0.047 & 0.0391667 & -0.618833 & 0.517 \\ 0.00626667 & 0.0313333 & 0.0235 & 0.0235 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.19 & 0.17 & 0.39 & 0.25 \\ 0.16 & 0. & 0.12 & 0.24 & 0.48 \\ 0.05 & 0.35 & 0. & 0.24 & 0.36 \\ 0.03 & 0.08 & 0.06 & 0. & 0.84 \\ 0.07 & 0.37 & 0.28 & 0.28 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.4465 & 0.0783333 & 0.101833 & 0.109667 & 0.156667 \\ 0.0548333 & -0.282 & 0.0235 & 0.0861667 & 0.1175 \\ 0.0626667 & 0.0861667 & -0.556167 & 0.141 & 0.274167 \\ 0.047 & 0.047 & 0.0235 & -0.611 & 0.4935 \\ 0.0156667 & 0.0313333 & 0.0313333 & 0.0391667 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.18 & 0.23 & 0.25 & 0.35 \\ 0.19 & 0. & 0.08 & 0.31 & 0.42 \\ 0.11 & 0.15 & 0. & 0.25 & 0.49 \\ 0.08 & 0.08 & 0.04 & 0. & 0.81 \\ 0.13 & 0.27 & 0.27 & 0.33 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.5405 & 0.0861667 & 0.101833 & 0.148833 & 0.2115 \\ 0.00783333 & -0.266333 & 0.0235 & 0.0626667 & 0.172333 \\ 0.0313333 & 0.0705 & -0.548333 & 0.172333 & 0.274167 \\ 0.00783333 & 0.0313333 & 0.0156667 & -0.5875 & 0.524833 \\ 0.00783333 & 0.0313333 & 0.00783333 & 0.0235 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.16 & 0.19 & 0.27 & 0.39 \\ 0.03 & 0. & 0.09 & 0.24 & 0.65 \\ 0.06 & 0.13 & 0. & 0.31 & 0.5 \\ 0.01 & 0.05 & 0.03 & 0. & 0.91 \\ 0.11 & 0.44 & 0.11 & 0.33 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.4935 & 0.109667 & 0.0235 & 0.227167 & 0.133167 \\ 0.0156667 & -0.180167 & 0.0391667 & 0.0156667 & 0.109667 \\ 0.0235 & 0.219333 & -0.517 & 0.0235 & 0.242833 \\ 0. & 0.0626667 & 0.0626667 & -0.524833 & 0.407333 \\ 0.0047 & 0.0391667 & 0.0235 & 0.0235 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.22 & 0.05 & 0.46 & 0.27 \\ 0.09 & 0. & 0.22 & 0.09 & 0.61 \\ 0.05 & 0.43 & 0. & 0.05 & 0.48 \\ 0. & 0.12 & 0.12 & 0. & 0.76 \\ 0.05 & 0.43 & 0.26 & 0.26 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.438667 & 0.133167 & 0. & 0.148833 & 0.148833 \\ 0.0548333 & -0.282 & 0.0235 & 0.0626667 & 0.148833 \\ 0.047 & 0.297667 & -0.485667 & 0.101833 & 0.047 \\ 0.1175 & 0.0548333 & 0.0548333 & -0.407333 & 0.188 \\ 0.00783333 & 0.047 & 0.0156667 & 0.047 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.31 & 0. & 0.35 & 0.35 \\ 0.19 & 0. & 0.08 & 0.22 & 0.51 \\ 0.1 & 0.6 & 0. & 0.21 & 0.1 \\ 0.28 & 0.13 & 0.13 & 0. & 0.45 \\ 0.07 & 0.4 & 0.13 & 0.4 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.532667 & 0.141 & 0.0548333 & 0.109667 & 0.235 \\ 0.0391667 & -0.360333 & 0.0235 & 0.0783333 & 0.219333 \\ 0.047 & 0.133167 & -0.595333 & 0.0705 & 0.344667 \\ 0.0313333 & 0.0626667 & 0.0156667 & -0.415167 & 0.3055 \\ 0.00783333 & 0.0235 & 0.00783333 & 0.0313333 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.26 & 0.1 & 0.2 & 0.43 \\ 0.11 & 0. & 0.07 & 0.22 & 0.61 \\ 0.08 & 0.22 & 0. & 0.12 & 0.58 \\ 0.08 & 0.15 & 0.04 & 0. & 0.74 \\ 0.11 & 0.33 & 0.11 & 0.44 & 0. \end{pmatrix}$

Where do those who do not transit directly to Perm. Empl. go? Results from OLM regime (DE)

Panel 1994-1997

Q1

ISCED 0-2

$$\begin{pmatrix} -0.462167 & 0.141 & 0.0548333 & 0.188 & 0.0783333 \\ 0.0235 & -0.235 & 0.0626667 & 0.0783333 & 0.0705 \\ 0.0391667 & 0.133167 & -0.509167 & 0.148833 & 0.180167 \\ 0.0235 & 0.0626667 & 0.0705 & -0.438667 & 0.282 \\ 0.00626667 & 0.0235 & 0.0548333 & 0.0548333 & -0.141 \end{pmatrix}$$

ISCED 3

$$\begin{pmatrix} -0.3995 & 0.0313333 & 0.047 & 0.1645 & 0.1645 \\ 0.0391667 & -0.313333 & 0.0548333 & 0.0783333 & 0.133167 \\ 0.0626667 & 0.0861667 & -0.509167 & 0.156667 & 0.203667 \\ 0.0235 & 0.0548333 & 0.0313333 & -0.564 & 0.454333 \\ 0.00783333 & 0.0156667 & 0.0235 & 0.0548333 & -0.101833 \end{pmatrix}$$

ISCED 5-6

$$\begin{pmatrix} -0.6815 & 0.0548333 & 0.156667 & 0.313333 & 0.156667 \\ 0.0235 & -0.297667 & 0.0235 & 0.109667 & 0.148833 \\ 0.0626667 & 0.094 & -0.6345 & 0.2115 & 0.274167 \\ 0.282 & 0.0235 & 0.0235 & -0.485667 & 0.430833 \\ 0. & 0.00783333 & 0.00783333 & 0.0548333 & -0.0705 \end{pmatrix}$$

VET

$$\begin{pmatrix} -0.564 & 0.0156667 & 0.172333 & 0.133167 & 0.250667 \\ 0.391667 & -0.783333 & 0. & 0.391667 & 0. \\ 0.156667 & 0.0548333 & -0.524833 & 0.156667 & 0.156667 \\ 0.0235 & 0.047 & 0.0861667 & -0.3525 & 0.195833 \\ 0.047 & 0.00783333 & 0.0156667 & 0.0391667 & -0.109667 \end{pmatrix}$$

W1

ISCED 0-2

$$\begin{pmatrix} 0. & 0.31 & 0.12 & 0.41 & 0.17 \\ 0.1 & 0. & 0.27 & 0.33 & 0.3 \\ 0.08 & 0.27 & 0. & 0.3 & 0.36 \\ 0.05 & 0.14 & 0.16 & 0. & 0.64 \\ 0.04 & 0.17 & 0.39 & 0.39 & 0. \end{pmatrix}$$

ISCED 3

$$\begin{pmatrix} 0. & 0.08 & 0.12 & 0.4 & 0.4 \\ 0.13 & 0. & 0.18 & 0.26 & 0.44 \\ 0.12 & 0.17 & 0. & 0.31 & 0.4 \\ 0.04 & 0.1 & 0.06 & 0. & 0.81 \\ 0.08 & 0.15 & 0.23 & 0.54 & 0. \end{pmatrix}$$

ISCED 5-6

$$\begin{pmatrix} 0. & 0.08 & 0.23 & 0.46 & 0.23 \\ 0.08 & 0. & 0.08 & 0.36 & 0.48 \\ 0.1 & 0.15 & 0. & 0.33 & 0.43 \\ 0.37 & 0.03 & 0.03 & 0. & 0.57 \\ 0. & 0.11 & 0.11 & 0.78 & 0. \end{pmatrix}$$

VET

$$\begin{pmatrix} 0. & 0.03 & 0.3 & 0.26 & 0.44 \\ 0.5 & 0. & 0. & 0.5 & 0. \\ 0.3 & 0.1 & 0. & 0.3 & 0.3 \\ 0.07 & 0.13 & 0.24 & 0. & 0.56 \\ 0.43 & 0.07 & 0.14 & 0.36 & 0. \end{pmatrix}$$

Panel 1998-2001

Q1

ISCED 0-2

$$\begin{pmatrix} -0.329 & 0.047 & 0.0235 & 0.219333 & 0.0313333 \\ 0.0235 & -0.2115 & 0.0548333 & 0.0705 & 0.0548333 \\ 0.047 & 0.0861667 & -0.485667 & 0.203667 & 0.141 \\ 0.0235 & 0.0235 & 0.0391667 & -0.148833 & 0.0626667 \\ 0.00313333 & 0.0235 & 0.0548333 & 0.0861667 & -0.1645 \end{pmatrix}$$

ISCED 3

$$\begin{pmatrix} -0.344667 & 0.0626667 & 0.0391667 & 0.148833 & 0.094 \\ 0.094 & -0.383833 & 0.0861667 & 0.1175 & 0.0861667 \\ 0.0548333 & 0.0783333 & -0.532667 & 0.195833 & 0.2115 \\ 0.0391667 & 0.0705 & 0.047 & -0.360333 & 0.203667 \\ 0.0705 & 0.0705 & 0.0235 & 0.0861667 & -0.125333 \end{pmatrix}$$

ISCED 5-6

$$\begin{pmatrix} -0.5405 & 0.0313333 & 0.094 & 0.329 & 0.094 \\ 0.0235 & -0.603167 & 0.047 & 0.227167 & 0.3055 \\ 0.0705 & 0.141 & -0.430833 & 0.0705 & 0.141 \\ 0.0235 & 0.0626667 & 0.0156667 & -0.3055 & 0.195833 \\ 0.00783333 & 0.00783333 & 0.00783333 & 0.0783333 & -0.094 \end{pmatrix}$$

VET

$$\begin{pmatrix} -0.665833 & 0.00783333 & 0.141 & 0.3525 & 0.1645 \\ 0. & -0.391667 & 0. & 0.391667 & 0. \\ 0.227167 & 0.109667 & -0.618833 & 0.227167 & 0.0548333 \\ 0.0313333 & 0.0313333 & 0.0548333 & -0.235 & 0.125333 \\ 0. & 0.00783333 & 0.0156667 & 0.047 & -0.0783333 \end{pmatrix}$$

W1

ISCED 0-2

$$\begin{pmatrix} 0. & 0.15 & 0.07 & 0.68 & 0.1 \\ 0.12 & 0. & 0.27 & 0.35 & 0.27 \\ 0.1 & 0.18 & 0. & 0.43 & 0.3 \\ 0.16 & 0.16 & 0.26 & 0. & 0.42 \\ 0.02 & 0.14 & 0.33 & 0.51 & 0. \end{pmatrix}$$

ISCED 3

$$\begin{pmatrix} 0. & 0.18 & 0.11 & 0.43 & 0.27 \\ 0.24 & 0. & 0.22 & 0.31 & 0.22 \\ 0.1 & 0.14 & 0. & 0.36 & 0.39 \\ 0.11 & 0.2 & 0.13 & 0. & 0.57 \\ 0.28 & 0.28 & 0.09 & 0.34 & 0. \end{pmatrix}$$

ISCED 5-6

$$\begin{pmatrix} 0. & 0.06 & 0.17 & 0.6 & 0.17 \\ 0.04 & 0. & 0.08 & 0.38 & 0.51 \\ 0.17 & 0.33 & 0. & 0.17 & 0.33 \\ 0.08 & 0.21 & 0.05 & 0. & 0.66 \\ 0.08 & 0.08 & 0.08 & 0.77 & 0. \end{pmatrix}$$

VET

$$\begin{pmatrix} 0. & 0.01 & 0.21 & 0.53 & 0.25 \\ 0. & 0. & 0. & 1 & 0. \\ 0.37 & 0.18 & 0. & 0.37 & 0.09 \\ 0.13 & 0.13 & 0.23 & 0. & 0.52 \\ 0. & 0.11 & 0.22 & 0.27 & 0. \end{pmatrix}$$

Where do those who do not transit directly to Perm. Empl. go? Results from Mediterranean regime (IT)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.407333 & 0.0626667 & 0.274167 & 0.0548333 & 0.0235 \\ 0.0156667 & -0.203667 & 0.109667 & 0.0548333 & 0.0313333 \\ 0.0313333 & 0.094 & -0.282 & 0.109667 & 0.0548333 \\ 0.00783333 & 0.0313333 & 0.0861667 & -0.391667 & 0.266333 \\ 0.00156667 & 0.0156667 & 0.0313333 & 0.0783333 & -0.133167 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.66 & 0.13 & 0.06 \\ 0.07 & 0. & 0.52 & 0.26 & 0.15 \\ 0.11 & 0.32 & 0. & 0.38 & 0.19 \\ 0.02 & 0.08 & 0.22 & 0. & 0.68 \\ 0.01 & 0.12 & 0.25 & 0.62 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.423 & 0.0626667 & 0.227167 & 0.0861667 & 0.0391667 \\ 0.0548333 & -0.3525 & 0.125333 & 0.101833 & 0.0783333 \\ 0.0548333 & 0.0705 & -0.297667 & 0.109667 & 0.0626667 \\ 0.0235 & 0.0235 & 0.047 & -0.430833 & 0.336833 \\ 0.0391667 & 0.0156667 & 0.0156667 & 0.0861667 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.55 & 0.21 & 0.09 \\ 0.15 & 0. & 0.35 & 0.28 & 0.22 \\ 0.18 & 0.24 & 0. & 0.37 & 0.21 \\ 0.05 & 0.05 & 0.11 & 0. & 0.78 \\ 0.25 & 0.1 & 0.1 & 0.55 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.462167 & 0.0626667 & 0.203667 & 0.141 & 0.0626667 \\ 0.0783333 & -0.4935 & 0.180167 & 0.180167 & 0.0548333 \\ 0.0548333 & 0.0705 & -0.376 & 0.172333 & 0.0626667 \\ 0.0391667 & 0.0156667 & 0.0235 & -0.423 & 0.336833 \\ 0. & 0.0156667 & 0.00783333 & 0.094 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.13 & 0.43 & 0.3 & 0.13 \\ 0.16 & 0. & 0.37 & 0.37 & 0.11 \\ 0.15 & 0.2 & 0. & 0.48 & 0.17 \\ 0.09 & 0.04 & 0.06 & 0. & 0.81 \\ 0. & 0.13 & 0.07 & 0.8 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.242833 & 0.047 & 0.133167 & 0.0313333 & 0.0313333 \\ 0.00783333 & -0.148833 & 0.0783333 & 0.0391667 & 0.0156667 \\ 0.0156667 & 0.101833 & -0.289833 & 0.1175 & 0.0626667 \\ 0.00156667 & 0.0313333 & 0.0783333 & -0.2585 & 0.148833 \\ 0. & 0.0156667 & 0.0235 & 0.0861667 & -0.125333 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.19 & 0.55 & 0.13 & 0.13 \\ 0.06 & 0. & 0.56 & 0.28 & 0.11 \\ 0.05 & 0.34 & 0. & 0.39 & 0.21 \\ 0.01 & 0.12 & 0.3 & 0. & 0.57 \\ 0. & 0.13 & 0.19 & 0.69 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.336833 & 0.0548333 & 0.133167 & 0.109667 & 0.047 \\ 0.0391667 & -0.289833 & 0.1175 & 0.0783333 & 0.047 \\ 0.047 & 0.0705 & -0.297667 & 0.109667 & 0.0783333 \\ 0.0235 & 0.0235 & 0.0626667 & -0.282 & 0.180167 \\ 0.00783333 & 0.00783333 & 0.0156667 & 0.0705 & -0.101833 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.16 & 0.39 & 0.32 & 0.14 \\ 0.14 & 0. & 0.42 & 0.28 & 0.17 \\ 0.15 & 0.23 & 0. & 0.36 & 0.26 \\ 0.08 & 0.08 & 0.22 & 0. & 0.62 \\ 0.08 & 0.08 & 0.15 & 0.69 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.618833 & 0.0705 & 0.321167 & 0.141 & 0.094 \\ 0.0391667 & -0.4465 & 0.125333 & 0.172333 & 0.109667 \\ 0.0548333 & 0.047 & -0.329 & 0.148833 & 0.0783333 \\ 0.00783333 & 0.0235 & 0.0235 & -0.219333 & 0.172333 \\ 0.00783333 & 0.0235 & 0.0235 & 0.0861667 & -0.141 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.11 & 0.51 & 0.22 & 0.15 \\ 0.09 & 0. & 0.28 & 0.39 & 0.25 \\ 0.17 & 0.14 & 0. & 0.45 & 0.24 \\ 0.03 & 0.1 & 0.1 & 0. & 0.76 \\ 0.06 & 0.17 & 0.17 & 0.61 & 0. \end{pmatrix}$

Who transits back to education? Results from ILM regime (UK)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.454333 & 0.0861667 & 0.0783333 & 0.180167 & 0.1175 \\ 0.0313333 & -0.203667 & 0.0235 & 0.047 & 0.094 \\ 0.0235 & 0.148833 & -0.423 & 0.101833 & 0.156667 \\ 0.0156667 & 0.047 & 0.0391667 & -0.618833 & 0.517 \\ 0.00626667 & 0.0313333 & 0.0235 & 0.0235 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.19 & 0.17 & 0.39 & 0.25 \\ 0.16 & 0. & 0.12 & 0.24 & 0.48 \\ 0.05 & 0.35 & 0. & 0.24 & 0.36 \\ 0.03 & 0.08 & 0.06 & 0. & 0.84 \\ 0.07 & 0.37 & 0.28 & 0.28 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.4465 & 0.0783333 & 0.101833 & 0.109667 & 0.156667 \\ 0.0548333 & -0.282 & 0.0235 & 0.0861667 & 0.1175 \\ 0.0626667 & 0.0861667 & -0.556167 & 0.141 & 0.274167 \\ 0.047 & 0.047 & 0.0235 & -0.611 & 0.4935 \\ 0.0156667 & 0.0313333 & 0.0313333 & 0.0391667 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.18 & 0.23 & 0.25 & 0.35 \\ 0.19 & 0. & 0.08 & 0.31 & 0.42 \\ 0.11 & 0.15 & 0. & 0.25 & 0.49 \\ 0.08 & 0.08 & 0.04 & 0. & 0.81 \\ 0.13 & 0.27 & 0.27 & 0.33 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.5405 & 0.0861667 & 0.101833 & 0.148833 & 0.2115 \\ 0.00783333 & -0.266333 & 0.0235 & 0.0626667 & 0.172333 \\ 0.0313333 & 0.0705 & -0.548333 & 0.172333 & 0.274167 \\ 0.00783333 & 0.0313333 & 0.0156667 & -0.5875 & 0.524833 \\ 0.00783333 & 0.0313333 & 0.00783333 & 0.0235 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.16 & 0.19 & 0.27 & 0.39 \\ 0.03 & 0. & 0.09 & 0.24 & 0.65 \\ 0.06 & 0.13 & 0. & 0.31 & 0.5 \\ 0.01 & 0.05 & 0.03 & 0. & 0.91 \\ 0.11 & 0.44 & 0.11 & 0.33 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.4935 & 0.109667 & 0.0235 & 0.227167 & 0.133167 \\ 0.0156667 & -0.180167 & 0.0391667 & 0.0156667 & 0.109667 \\ 0.0235 & 0.219333 & -0.517 & 0.0235 & 0.242833 \\ 0. & 0.0626667 & 0.0626667 & -0.524833 & 0.407333 \\ 0.0047 & 0.0391667 & 0.0235 & 0.0235 & -0.0861667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.22 & 0.05 & 0.46 & 0.27 \\ 0.09 & 0. & 0.22 & 0.09 & 0.61 \\ 0.05 & 0.43 & 0. & 0.05 & 0.48 \\ 0. & 0.12 & 0.12 & 0. & 0.76 \\ 0.05 & 0.43 & 0.26 & 0.26 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.438667 & 0.133167 & 0. & 0.148833 & 0.148833 \\ 0.0548333 & -0.282 & 0.0235 & 0.0626667 & 0.148833 \\ 0.047 & 0.297667 & -0.485667 & 0.101833 & 0.047 \\ 0.1175 & 0.0548333 & 0.0548333 & -0.407333 & 0.188 \\ 0.00783333 & 0.047 & 0.0156667 & 0.047 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.31 & 0. & 0.35 & 0.35 \\ 0.19 & 0. & 0.08 & 0.22 & 0.51 \\ 0.1 & 0.6 & 0. & 0.21 & 0.1 \\ 0.28 & 0.13 & 0.13 & 0. & 0.45 \\ 0.07 & 0.4 & 0.13 & 0.4 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.532667 & 0.141 & 0.0548333 & 0.109667 & 0.235 \\ 0.0391667 & -0.360333 & 0.0235 & 0.0783333 & 0.219333 \\ 0.047 & 0.133167 & -0.595333 & 0.0705 & 0.344667 \\ 0.0313333 & 0.0626667 & 0.0156667 & -0.415167 & 0.3055 \\ 0.00783333 & 0.0235 & 0.00783333 & 0.0313333 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.26 & 0.1 & 0.2 & 0.43 \\ 0.11 & 0. & 0.07 & 0.22 & 0.61 \\ 0.08 & 0.22 & 0. & 0.12 & 0.58 \\ 0.08 & 0.15 & 0.04 & 0. & 0.74 \\ 0.11 & 0.33 & 0.11 & 0.44 & 0. \end{pmatrix}$

What is the probability of transiting directly to perm. Empl.? Results from OLM regime (DE)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.462167 & 0.141 & 0.0548333 & 0.188 & 0.0783333 \\ 0.0235 & -0.235 & 0.0626667 & 0.0783333 & 0.0705 \\ 0.0391667 & 0.133167 & -0.509167 & 0.148833 & 0.180167 \\ 0.0235 & 0.0626667 & 0.0705 & -0.438667 & 0.282 \\ 0.00626667 & 0.0235 & 0.0548333 & 0.0548333 & -0.141 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.31 & 0.12 & 0.41 & 0.17 \\ 0.1 & 0. & 0.27 & 0.33 & 0.3 \\ 0.08 & 0.27 & 0. & 0.3 & 0.36 \\ 0.05 & 0.14 & 0.16 & 0. & 0.64 \\ 0.04 & 0.17 & 0.39 & 0.39 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.3995 & 0.0313333 & 0.047 & 0.1645 & 0.1645 \\ 0.0391667 & -0.313333 & 0.0548333 & 0.0783333 & 0.133167 \\ 0.0626667 & 0.0861667 & -0.509167 & 0.156667 & 0.203667 \\ 0.0235 & 0.0548333 & 0.0313333 & -0.564 & 0.454333 \\ 0.00783333 & 0.0156667 & 0.0235 & 0.0548333 & -0.101833 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.08 & 0.12 & 0.4 & 0.4 \\ 0.13 & 0. & 0.18 & 0.26 & 0.44 \\ 0.12 & 0.17 & 0. & 0.31 & 0.4 \\ 0.04 & 0.1 & 0.06 & 0. & 0.81 \\ 0.08 & 0.15 & 0.23 & 0.54 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.6815 & 0.0548333 & 0.156667 & 0.313333 & 0.156667 \\ 0.0235 & -0.297667 & 0.0235 & 0.109667 & 0.148833 \\ 0.0626667 & 0.094 & -0.6345 & 0.2115 & 0.274167 \\ 0.282 & 0.0235 & 0.0235 & -0.485667 & 0.430833 \\ 0. & 0.00783333 & 0.00783333 & 0.0548333 & -0.0705 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.08 & 0.23 & 0.46 & 0.23 \\ 0.08 & 0. & 0.08 & 0.36 & 0.49 \\ 0.1 & 0.15 & 0. & 0.33 & 0.43 \\ 0.37 & 0.03 & 0.03 & 0. & 0.57 \\ 0. & 0.11 & 0.11 & 0.78 & 0. \end{pmatrix}$
VET	$\begin{pmatrix} -0.564 & 0.0156667 & 0.172333 & 0.133167 & 0.250667 \\ 0.391667 & -0.783333 & 0. & 0.391667 & 0. \\ 0.156667 & 0.0548333 & -0.524833 & 0.156667 & 0.156667 \\ 0.0235 & 0.047 & 0.0861667 & -0.3525 & 0.195833 \\ 0.047 & 0.00783333 & 0.0156667 & 0.0391667 & -0.109667 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.03 & 0.3 & 0.26 & 0.44 \\ 0.5 & 0. & 0. & 0.5 & 0. \\ 0.3 & 0.1 & 0. & 0.3 & 0.3 \\ 0.07 & 0.13 & 0.24 & 0. & 0.56 \\ 0.43 & 0.07 & 0.14 & 0.36 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.329 & 0.047 & 0.0235 & 0.219333 & 0.0313333 \\ 0.0235 & -0.2115 & 0.0548333 & 0.0705 & 0.0548333 \\ 0.047 & 0.0861667 & -0.485667 & 0.203667 & 0.141 \\ 0.0235 & 0.0235 & 0.0391667 & -0.148833 & 0.0626667 \\ 0.00313333 & 0.0235 & 0.0548333 & 0.0861667 & -0.1645 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.07 & 0.68 & 0.1 \\ 0.12 & 0. & 0.27 & 0.35 & 0.27 \\ 0.1 & 0.18 & 0. & 0.43 & 0.3 \\ 0.16 & 0.16 & 0.26 & 0. & 0.42 \\ 0.02 & 0.14 & 0.33 & 0.51 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.344667 & 0.0626667 & 0.0391667 & 0.148833 & 0.094 \\ 0.094 & -0.383833 & 0.0861667 & 0.1175 & 0.0861667 \\ 0.0548333 & 0.0783333 & -0.532667 & 0.195833 & 0.2115 \\ 0.0391667 & 0.0705 & 0.047 & -0.360333 & 0.203667 \\ 0.0705 & 0.0705 & 0.0235 & 0.0861667 & -0.125333 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.18 & 0.11 & 0.43 & 0.27 \\ 0.24 & 0. & 0.22 & 0.31 & 0.22 \\ 0.1 & 0.14 & 0. & 0.36 & 0.39 \\ 0.11 & 0.2 & 0.13 & 0. & 0.57 \\ 0.28 & 0.28 & 0.09 & 0.34 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.5405 & 0.0313333 & 0.094 & 0.329 & 0.094 \\ 0.0235 & -0.603167 & 0.047 & 0.227167 & 0.3055 \\ 0.0705 & 0.141 & -0.430833 & 0.0705 & 0.141 \\ 0.0235 & 0.0626667 & 0.0156667 & -0.3055 & 0.195833 \\ 0.00783333 & 0.00783333 & 0.00783333 & 0.0783333 & -0.094 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.06 & 0.17 & 0.6 & 0.17 \\ 0.04 & 0. & 0.08 & 0.38 & 0.51 \\ 0.17 & 0.33 & 0. & 0.17 & 0.33 \\ 0.08 & 0.21 & 0.05 & 0. & 0.66 \\ 0.08 & 0.08 & 0.08 & 0.77 & 0. \end{pmatrix}$
VET	$\begin{pmatrix} -0.665833 & 0.00783333 & 0.141 & 0.3525 & 0.1645 \\ 0. & -0.391667 & 0. & 0.391667 & 0. \\ 0.227167 & 0.109667 & -0.618833 & 0.227167 & 0.0548333 \\ 0.0313333 & 0.0313333 & 0.0548333 & -0.235 & 0.125333 \\ 0. & 0.00783333 & 0.0156667 & 0.047 & -0.0783333 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.01 & 0.21 & 0.53 & 0.25 \\ 0. & 0. & 0. & 1. & 0. \\ 0.37 & 0.18 & 0. & 0.37 & 0.09 \\ 0.13 & 0.13 & 0.23 & 0. & 0.52 \\ 0. & 0.11 & 0.22 & 0.27 & 0. \end{pmatrix}$

What is the probability of transiting directly to Perm. Empl.? Results from Mediterranean regime (IT)

	Panel 1994-1997	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.407333 & 0.0626667 & 0.274167 & 0.0548333 & 0.0235 \\ 0.0156667 & -0.203667 & 0.109667 & 0.0548333 & 0.0313333 \\ 0.0313333 & 0.094 & -0.282 & 0.109667 & 0.0548333 \\ 0.00783333 & 0.0313333 & 0.0861667 & -0.391667 & 0.266333 \\ 0.00156667 & 0.0156667 & 0.0313333 & 0.0783333 & -0.133167 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.66 & 0.13 & 0.06 \\ 0.07 & 0. & 0.52 & 0.26 & 0.15 \\ 0.11 & 0.32 & 0. & 0.38 & 0.19 \\ 0.02 & 0.08 & 0.22 & 0. & 0.68 \\ 0.01 & 0.12 & 0.25 & 0.62 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.423 & 0.0626667 & 0.227167 & 0.0861667 & 0.0391667 \\ 0.0548333 & -0.3525 & 0.125333 & 0.101833 & 0.0783333 \\ 0.0548333 & 0.0705 & -0.297667 & 0.109667 & 0.0626667 \\ 0.0235 & 0.0235 & 0.047 & -0.430833 & 0.336833 \\ 0.0391667 & 0.0156667 & 0.0156667 & 0.0861667 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.15 & 0.55 & 0.21 & 0.09 \\ 0.15 & 0. & 0.35 & 0.28 & 0.22 \\ 0.18 & 0.24 & 0. & 0.37 & 0.21 \\ 0.05 & 0.05 & 0.11 & 0. & 0.78 \\ 0.25 & 0.1 & 0.1 & 0.55 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.462167 & 0.0626667 & 0.203667 & 0.141 & 0.0626667 \\ 0.0783333 & -0.4935 & 0.180167 & 0.180167 & 0.0548333 \\ 0.0548333 & 0.0705 & -0.376 & 0.172333 & 0.0626667 \\ 0.0391667 & 0.0156667 & 0.0235 & -0.423 & 0.336833 \\ 0. & 0.0156667 & 0.00783333 & 0.094 & -0.1175 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.13 & 0.43 & 0.3 & 0.13 \\ 0.16 & 0. & 0.37 & 0.37 & 0.11 \\ 0.15 & 0.2 & 0. & 0.48 & 0.17 \\ 0.09 & 0.04 & 0.06 & 0. & 0.81 \\ 0. & 0.13 & 0.07 & 0.8 & 0. \end{pmatrix}$
	Panel 1998-2001	
	Q1	W1
ISCED 0-2	$\begin{pmatrix} -0.242833 & 0.047 & 0.133167 & 0.0313333 & 0.0313333 \\ 0.00783333 & -0.148833 & 0.0783333 & 0.0391667 & 0.0156667 \\ 0.0156667 & 0.101833 & -0.289833 & 0.1175 & 0.0626667 \\ 0.00156667 & 0.0313333 & 0.0783333 & -0.2585 & 0.148833 \\ 0. & 0.0156667 & 0.0235 & 0.0861667 & -0.125333 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.19 & 0.55 & 0.13 & 0.13 \\ 0.06 & 0. & 0.56 & 0.28 & 0.11 \\ 0.05 & 0.34 & 0. & 0.39 & 0.21 \\ 0.01 & 0.12 & 0.3 & 0. & 0.57 \\ 0. & 0.13 & 0.19 & 0.69 & 0. \end{pmatrix}$
ISCED 3	$\begin{pmatrix} -0.336833 & 0.0548333 & 0.133167 & 0.109667 & 0.047 \\ 0.0391667 & -0.289833 & 0.1175 & 0.0783333 & 0.047 \\ 0.047 & 0.0705 & -0.297667 & 0.109667 & 0.0783333 \\ 0.0235 & 0.0235 & 0.0626667 & -0.282 & 0.180167 \\ 0.00783333 & 0.00783333 & 0.0156667 & 0.0705 & -0.101833 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.16 & 0.39 & 0.32 & 0.14 \\ 0.14 & 0. & 0.42 & 0.28 & 0.17 \\ 0.15 & 0.23 & 0. & 0.36 & 0.26 \\ 0.08 & 0.08 & 0.22 & 0. & 0.62 \\ 0.08 & 0.08 & 0.15 & 0.69 & 0. \end{pmatrix}$
ISCED 5-6	$\begin{pmatrix} -0.618833 & 0.0705 & 0.321167 & 0.141 & 0.094 \\ 0.0391667 & -0.4465 & 0.125333 & 0.172333 & 0.109667 \\ 0.0548333 & 0.047 & -0.329 & 0.148833 & 0.0783333 \\ 0.00783333 & 0.0235 & 0.0235 & -0.219333 & 0.172333 \\ 0.00783333 & 0.0235 & 0.0235 & 0.0861667 & -0.141 \end{pmatrix}$	$\begin{pmatrix} 0. & 0.11 & 0.51 & 0.22 & 0.15 \\ 0.09 & 0. & 0.28 & 0.39 & 0.25 \\ 0.17 & 0.14 & 0. & 0.45 & 0.24 \\ 0.03 & 0.1 & 0.1 & 0. & 0.76 \\ 0.06 & 0.17 & 0.17 & 0.61 & 0. \end{pmatrix}$

Results: Continuous-time Markov Model

How long does a young graduate spend at each state in an ILM regime country? Example from the UK

Panel 1994-1997

LOW SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.20				
Inactivity		4.91			
Unemployment			2.36		
Temp.Contract				1.62	
Perm.Contract					11.61

MEDIUM SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.24				
Inactivity		3.55			
Unemployment			1.80		
Temp.Contract				1.64	
Perm.Contract					11.61

HIGH SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	1.85				
Inactivity		3.75			
Unemployment			1.82		
Temp.Contract				1.70	
Perm.Contract					14.18

Panel 1998-2001

LOW SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.03				
Inactivity		5.55			
Unemployment			1.93		
Temp.Contract				1.91	
Perm.Contract					11.61

MEDIUM SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.28				
Inactivity		3.55			
Unemployment			2.06		
Temp.Contract				2.45	
Perm.Contract					8.51

HIGH SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	1.88				
Inactivity		2.78			
Unemployment			1.68		
Temp.Contract				2.41	
Perm.Contract					14.18

Results: Continuous-time Markov Model

How long does a young graduate spend at each state in an OLM country? (DE)

Panel 1994-1997

LOW SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.16				
Inactivity		4.26			
Unemployment			1.96		
Temp.Contract				2.28	
Perm.Contract					7.09

MEDIUM SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.50				
Inactivity		3.19			
Unemployment			1.96		
Temp.Contract				1.77	
Perm.Contract					9.82

HIGH SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	1.47				
Inactivity		3.36			
Unemployment			1.58		
Temp.Contract				2.06	
Perm.Contract					14.18

VET	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	1.77				
Inactivity		1.28			
Unemployment			1.91		
Temp.Contract				2.84	
Perm.Contract					9.12

Panel 1998-2001

LOW SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	3.04				
Inactivity		4.73			
Unemployment			2.06		
Temp.Contract				6.72	
Perm.Contract					6.08

MEDIUM SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.90				
Inactivity		2.61			
Unemployment			1.88		
Temp.Contract				2.78	
Perm.Contract					7.98

HIGH SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	1.85				
Inactivity		1.66			
Unemployment			2.32		
Temp.Contract				3.27	
Perm.Contract					10.64

VET	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	1.50				
Inactivity		2.55			
Unemployment			1.62		
Temp.Contract				4.26	
Perm.Contract					12.77

Results: Continuous-time Markov Model

How long does a young graduate spend at each state in a Mediterranean Regime Country? Example from IT

Panel 1994-1997

LOW SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.45				
Inactivity		4.91			
Unemployment			3.55		
Temp.Contract				2.55	
Perm.Contract					7.51

MEDIUM SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.36				
Inactivity		2.84			
Unemployment			3.36		
Temp.Contract				2.32	
Perm.Contract					8.51

HIGH SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.16				
Inactivity		2.03			
Unemployment			2.66		
Temp.Contract				2.36	
Perm.Contract					8.51

Panel 1998-2001

LOW SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	4.12				
Inactivity		6.72			
Unemployment			3.45		
Temp.Contract				3.87	
Perm.Contract					7.98

MEDIUM SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	2.97				
Inactivity		3.45			
Unemployment			3.36		
Temp.Contract				3.55	
Perm.Contract					9.82

HIGH SKILLED	Education	Inactivity	Unempl.	Temp. Contract	Perm. Contract
Education	1.62				
Inactivity		2.24			
Unemployment			3.04		
Temp.Contract				4.56	
Perm.Contract					7.09

Conclusions

1) **<u>Survival model estimates</u>**:
   - Overall, it took 3 years for the 1994-97 panel to transit to permanent occupation vs. 2.46 years for the 1998-2001 panel.
   - The UK, Denmark and Ireland are the countries where the transition is the fastest;
   - Spain, Greece and Italy are the countries where young graduates struggle the most.
   - The speed of transition to permanent occupation is positively correlated with the number of years of experience; on the other hand, it is negatively altered by the fact that the individual is living in a country with low employment protection regulations.
   - Estimations conducted at the country level confirm the presence of a positive significant effect of the level of educational attainment in most EU countries as well as a strong positive effect of the completion of a vocational degree in all countries applying a dual system of education and training, i.e., Austria, Germany and Denmark (especially for the 1998-2001 panel).

Conclusions

- Last but not least, while female where significantly disadvantaged on the labour market in the 1994-97 panel, that disadvantage was no longer significant in the 1998-2001 panel (=> a result of efficient gender equity and family support policies?).

2) **Markov chain estimates**:

- On average, an individual had to pass through, respectively, 1.47 states and 1.16 states if he belonged to the 1994-1997 panel or the 1998-2001 panel.
- Austria, closely followed by the UK, is the country in which the transition is the most direct with less than 1 jump on average. At the other end, Spain is the country with the highest number of movements between states before stabilizing in a permanent occupation (more than 1.5 jumps).

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