

## Appendix

Table A1: Mean (standard deviation) of main variables by education

Family background	Disadvantaged		Middle group		Advantaged	
	Low	High	Low	High	Low	High
Qualifications	0.81	0.92	0.85	0.94	0.92	0.97
Employment	(0.39)	(0.28)	(0.35)	(0.23)	(0.26)	(0.16)
Temporary contract	0.19	0.16	0.22	0.20	0.19	0.30
	(0.39)	(0.37)	(0.42)	(0.40)	(0.39)	(0.46)
Hourly wage	6.20	7.21	5.95	7.31	7.74	8.03
	(3.01)	(3.44)	(3.74)	(3.75)	(8.49)	(4.90)
Job that at least matches qualification	0.80	0.81	0.80	0.77	0.81	0.76
	(0.40)	(0.39)	(0.40)	(0.32)	(0.39)	(0.43)
Job search through friends or relatives	0.59	0.29	0.52	0.32	0.55	0.29
	(0.49)	(0.45)	(0.50)	(0.46)	(0.50)	(0.45)
Age	24.33	26.33	22.92	25.86	20.73	26.24
	(4.59)	(4.39)	(4.27)	(4.18)	(3.85)	(4.07)
Satisfaction health (10-point scale)	7.76	7.75	7.73	7.53	7.74	7.67
	(1.94)	(1.74)	(1.91)	(1.87)	(1.78)	(1.78)
Male	0.59	0.59	0.55	0.49	0.55	0.51
	(0.49)	(0.49)	(0.50)	(0.50)	(0.50)	(0.50)
Potential experience	6.14	8.15	4.89	7.79	3.08	8.29
	(4.46)	(4.69)	(4.23)	(4.46)	(3.78)	(4.45)
No degree	0.23	/	0.20	/	0.53	/
	(0.42)		(0.40)		(0.50)	
Basic sec.	0.71	/	0.67	/	0.24	/
	(0.46)		(0.47)		(0.43)	
Technical or general sec.	0.03	/	0.10	/	0.23	/
	(0.17)		(0.29)		(0.42)	
Other sec.	0.04	/	0.04	/	0.01	/
	(0.19)		(0.19)		(0.10)	
Apprentice or voc. school	/	0.75	/	0.71	/	0.36
		(0.44)		(0.45)		(0.48)
Technical school	/	0.09	/	0.08	/	0.04
		(0.29)		(0.27)		(0.20)
Other voc.	/	0.03	/	0.02	/	0.02
		(0.17)		(0.13)		(0.15)

		0.04		0.04		0.06
Technical college	/	(0.20)	/	(0.19)	/	(0.24)
		0.09		0.15		0.51
University	/	(0.28)	/	(0.36)	/	(0.50)
		0.34		0.15		0.05
Married	(0.47)	(0.45)	(0.36)	(0.39)	(0.22)	(0.31)
		0.77		0.42		0.11
Migration background	(0.40)	(0.48)	(0.49)	(0.45)	(0.32)	(0.32)
		0.58		0.39		0.17
Child in the household	(0.49)	(0.48)	(0.49)	(0.44)	(0.50)	(0.37)
		53.90		57.41		51.63
Father age	(7.28)	(7.57)	(6.93)	(6.99)	(7.15)	(6.74)
		50.81		53.18		48.32
Mother age	(7.47)	(7.52)	(6.35)	(6.55)	(6.28)	(6.25)
		8.30		8.59		8.32
Unemployment rate by ROR	(3.08)	(2.80)	(2.77)	(2.89)	(2.95)	(3.20)
		8.25		8.72		8.80
Unemployment rate by state	(2.58)	(2.42)	(2.65)	(2.74)	(2.92)	(3.01)
Maximum years of education of parent while child grew up	8.55	9.06	10.95	11.10	15.98	15.74
	(1.37)	(1.42)	(1.22)	(1.14)	(2.44)	(2.54)
Highest average status of parents while child grew up	27.99	27.97	41.18	42.41	58.97	58.84
	(6.78)	(6.35)	(7.59)	(7.51)	(8.47)	(8.23)
Highest average household income of parents when child grew up	13,575.8	14,501.0	20,538.2	21,208.9	36,550.6	35,488.7
	(3620.4)	(4155.2)	(6103.8)	(6112.6)	(14638.1)	(13816.4)
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<i>N observations (for employment)</i>		1380	1646	2288	5521	530
						1523
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Table A2: Full models of employment, log hourly wage and temporary contract

<b>Low Qualifications</b>	<b>Employment (odds ratio)</b>	<b>Log hourly wage</b>	<b>Temporary (odds ratio)</b>
Constant	0.03 (0.05)	0.03 (0.32)	4852.93 (12874.24)
Age (between)	1.31 (0.11)	0.04 (0.01)	0.62 (0.06)
Age (within)	1.22 (0.10)	0.04 (0.01)	0.64 (0.06)
Age <sup>2</sup> (within)	1.00 (0.01)	-0.00 (0.00)	1.02 (0.01)
Male	0.99 (0.21)	0.07 (0.03)	1.19 (0.30)
Married	1.14 (0.28)	0.08 (0.03)	1.12 (0.32)
Child (between)	0.68 (0.23)	-0.04 (0.05)	0.77 (.32)
Child (within)	1.42 (0.28)	0.01 (0.02)	1.15 (0.27)
Migrant	1.02 (0.37)	0.13 (0.06)	2.04 (0.90)
Health (between)	1.23 (0.10)	0.06 (0.01)	0.79 (0.08)
Health (within)	1.08 (0.04)	0.00 (0.00)	1.06 (0.06)
Potential experience	0.91 (0.08)	-0.01 (0.01)	1.15 (0.11)
No degree (ref)	/	/	/
Basic/intermediate			
secondary	0.19 (0.05)	-0.08 (0.03)	3.60 (1.16)
Technical/general sec.	0.25 (0.09)	-0.10 (0.05)	8.43 (3.71)
Other secondary	0.08 (0.04)	-0.19 (0.07)	1.94 (1.30)
Father's age	1.03 (0.02)	-0.00 (0.00)	0.99 (0.03)
Mother's age	0.95 (0.03)	0.01 (0.00)	1.00 (0.03)
Middle (vs disadv.)	2.42 (0.65)	0.01 (0.09)	4.30 (3.33)
Adv. (vs disadv.)	6.90 (3.03)	0.17 (0.16)	0.78 (1.10)
Unemployment rate	0.75 (0.05)	0.00 (0.01)	1.30 (0.10)
(ROR)			
Middle * Unemployment	1.15 (0.08)	0.00 (0.01)	0.85 (0.07)
Adv. * Unemployment	1.03 (0.12)	-0.00 (0.02)	0.96 (0.15)
State fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Sample fixed effects	Yes	Yes	Yes
<i>Rho</i>	0.61	0.63	0.61
<i>N persons</i>	1370	754	754
<i>N observations</i>	4198	2503	2503
<b>High Qualifications</b>			
Constant	0.04 (0.08)	0.94 (0.23)	2854.54 (5938.47)
Age (between)	1.26 (0.09)	0.04 (0.01)	0.68 (0.04)

Age (within)	1.24 (0.09)	0.03 (0.01)	0.67 (0.04)
Age <sup>2</sup> (within)	0.99 (0.00)	-0.00 (0.00)	1.01 (0.00)
Male	0.75 (0.14)	0.09 (0.02)	1.24 (0.19)
Married	1.06 (0.24)	0.02 (0.01)	1.01 (0.18)
Child (between)	0.52 (0.16)	-0.02 (0.03)	0.83 (0.23)
Child (within)	0.69 (0.14)	0.00 (0.01)	1.20 (0.19)
Migrant	0.60 (0.18)	-0.00 (0.03)	1.06 (0.28)
Health (between)	1.12 (0.08)	0.02 (0.01)	1.05 (0.06)
Health (within)	0.98 (0.04)	0.00 (0.00)	1.00 (0.03)
Potential experience	0.92 (0.06)	0.00 (0.00)	1.10 (0.06)
Schooling:			
Apprentice/vocational (ref)	/	/	/
-Technical school	1.70 (0.63)	0.06 (0.02)	0.63 (0.17)
-Other vocational	0.87 (0.47)	0.04 (0.05)	1.03 (0.53)
-Technical college	1.60 (0.71)	0.14 (0.03)	1.52 (0.48)
-University	6.87 (2.20)	0.06 (0.02)	3.44 (0.63)
Father's age	1.01 (0.02)	-0.00 (0.00)	1.02 (0.02)
Mother's age	1.01 (0.03)	0.00 (0.00)	0.97 (0.02)
Middle (vs. disadv.)	1.56 (0.37)	-0.11 (0.07)	0.38 (0.25)
Adv. (vs disadv.)	2.10 (0.76)	-0.23 (0.09)	0.66 (0.50)
Unemployment rate (state)	1.11 (0.08)	-0.02 (0.01)	0.82 (0.06)
Middle * Unemployment	1.26(0.14)	0.02 (0.01)	1.11 (0.08)
Adv. * Unemployment		0.02 (0.01)	1.11 (0.09)
State fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Sample fixed effects	Yes	Yes	Yes
<i>Rho</i>	0.54	0.32	0.58
<i>N persons</i>	1845	1570	1570
<i>N observations</i>	8690	7138	7138

Table A3: Main outcomes separated by gender

	Employment (odds ratio)		Log hourly wage		Temporary (odds)	
	Female	Male	Female	Male	Female	Male
<b>Low Qualifications</b>						
Middle (vs disadv.)	2.67 (1.08)**	2.03 (0.74)*	-0.03 (0.05)	0.08 (0.06)	0.88 (0.39)	1.39 (0.60)
Adv. (vs disadv.)	7.99 (5.49)**	7.86 (4.85)**	0.18 (0.08)**	0.18 (0.09)*	0.86 (0.64)	0.44 (0.33)
Unemployment rate (ROR)	0.79 (0.07)**	0.70 (0.07)**	0.00 (0.01)	0.00 (0.01)	1.14 (0.11)	1.47 (0.17)**
Middle * Unemployment	1.10 (0.11)	1.19 (0.12)*	0.01 (0.01)	0.00 (0.02)	0.89 (0.11)	0.81 (0.10)*
Adv. * Unemployment	0.83 (0.14)	1.23 (0.22)	0.00 (0.02)	0.00 (0.03)	0.84 (0.18)	1.13 (0.27)
<i>N persons</i>	634	736	343	411	343	411
<i>N observations</i>	1828	2370	1038	1465	1038	1465
<b>High Qualifications</b>						
Middle (vs disadv.)	1.34 (0.48)	1.77 (0.60)*	0.02 (0.04)	0.04 (0.04)	0.72 (0.24)	1.35 (0.42)
Adv. (vs disadv.)	1.46 (0.75)	3.52 (1.99)**	-0.06 (0.05)	-0.01 (0.05)	1.44 (0.60)	2.05 (0.81)*
Unemployment rate (state)	0.82 (0.11)	0.90 (0.11)	-0.03 (0.01)**	-0.02 (0.01)*	0.74 (0.09)**	0.90 (0.09)
Middle * Unemployment	1.22 (0.15)*	1.06 (0.11)	0.03 (0.01)**	0.01 (0.01)	1.10 (0.12)	1.13 (0.11)
Adv. * Unemployment	1.26 (0.20)	1.42 (0.26)*	0.03 (0.01)**	0.02 (0.01)	0.98 (0.12)	1.28 (0.15)**
<i>N persons</i>	916	929	785	785	785	810
<i>N observations</i>	4247	4443	3521	3617	3521	3776

\*:  $p < 0.1$ , \*\*:  $p < 0.05$ , controlled for year (dummies), state (dummies), sample (dummies), school (dummies), marital status, child, migrant, satisfaction with health, age of father, age of mother potential experience.

Table A4: robustness of sensitivity to business cycle by background by including further interactions

Includes:	interaction background and year			interaction schooling and unemployment rate		
	Employment	Log hourly wage	Temporary	Employment	Log hourly wage	Temporary
<b>Low Qualifications</b>						
Disadvantaged	-0.30 (0.06)***	0.003 (0.008)	0.26 (0.08)***	-0.29 (0.06)***	0.004 (0.008)	0.28 (0.08)***
Middle	-0.15 (0.06)*	0.006 (0.008)	0.10 (0.07)	-0.15 (0.06)**	0.006 (0.008)	0.10 (0.07)
Advantaged	-0.26 (0.11)**	0.001 (0.018)	0.21 (0.16)	-0.27 (0.11)**	0.002 (0.019)	0.19 (0.16)
<b>Test for added interaction</b>	Chi2 = 4.51 (df=2)*	Chi2 = 0.48 (df=2)	Chi2 = 2.06 (df=2)	Chi2 = 0.25 (df=3)	Chi2 = 2.16 (df=3)	Chi2 = 3.93 (df=3)
<b>High Qualifications</b>						
Disadvantaged	-0.13 (0.08)	-0.023 (0.007)***	-0.20 (0.07)***	-0.12 (0.09)	-0.023 (0.007)***	-0.20 (0.07)***
Middle	-0.03 (0.06)	-0.008 (0.004)*	-0.09 (0.05)*	-0.01 (0.06)	-0.007 (0.04)*	-0.09 (0.05)**
Advantaged	0.10 (0.10)	-0.001 (0.006)	-0.11 (0.06)*	0.10 (0.10)	-0.001 (0.006)	-0.07 (0.06)
<b>Test for added interaction</b>	Chi2 = 5.79 (df=2)*	Chi2 = 6.87** (df=2)	Chi2 = 4.28 (df=2)	Chi2 = 4.79 (df=4)	Chi2 = 2.04 (df=4)	Chi2 = 3.75 (df=4)

\*:  $p < 0.1$ , \*\*:  $p < 0.05$ , predicted marginal effects of local unemployment rate at the grand margin, showing the effect in percentage points for all binary outcomes. The effect on hourly wage is shown in log form. The table shows the marginal effects when controlling for an interaction between parental background and year (left panel) and school and local unemployment rate (right panel). The joint significance of these interactions is tested and the chi2 with degrees of freedom is shown.

Table A5: Main outcomes for first 5 years observed and later

Low Qualifications	Employment (odds ratio)		Log hourly wage		Temporary (odds ratio)	
	Early career	Late career	Early career	Late career	Early career	Late career
Middle (vs disadv.)	3.28 (1.05)**	1.02 (0.67)	0.03 (0.05)	-0.07 (0.06)	1.03 (0.52)	1.08 (0.50)
Adv. (vs disadv.)	13.85 (7.24)**	1.24 (1.55)	0.13 (0.07)*	0.05 (0.13)	0.50 (0.40)	0.23 (0.32)
Unemployment rate (ROR)	0.75 (0.07)**	0.70 (0.08)**	0.01 (0.01)	-0.01 (0.01)	1.58 (0.22)**	1.10 (0.13)
Middle * Unemployment	1.26 (0.11)**	1.15 (0.16)	-0.01 (0.01)	0.03 (0.01)*	0.82 (0.11)	0.99 (0.13)
Highest * Unemployment	1.30 (0.19)*	0.64 (0.20)	-0.02 (0.02)	0.06 (0.04)*	0.87 (0.21)	1.06 (0.51)
<i>N persons</i>	1279	406	643	320	643	320
<i>N observations</i>	2584	1614	1302	1201	1302	1201
High Qualifications	Early career	Late career	Early career	Late career	Early career	Late career
	career	career	career	career	career	career
Middle (vs disadv.)	2.03 (0.73)**	1.58 (0.53)	0.03 (0.04)	-0.01 (0.03)	1.29 (0.48)	0.73 (0.22)
Adv. (vs disadv.)	4.26 (2.77)**	1.38 (0.66)	-0.06 (0.05)	-0.05 (0.04)	2.56 (1.29)*	1.32 (0.49)
Unemployment rate (state)	0.85 (0.12)	0.83 (0.10)*	-0.03 (0.01)**	-0.00 (0.01)	0.76 (0.09)*	0.75 (0.08)**
Middle * Unemployment	1.13 (0.14)	1.21 (0.13)*	0.02 (0.01)	-0.00 (0.01)	1.19 (0.14)	1.20 (0.12)*
Highest * Unemployment	1.44 (0.32)*	1.28 (0.18)*	0.03 (0.01)**	0.01 (0.01)	1.17 (0.16)	1.20 (0.13)*
<i>N persons</i>	1289	1257	963	1135	963	1135
<i>N observations</i>	2792	5898	2145	4993	2145	4993

\*:  $p < 0.1$ , \*\*:  $p < 0.05$ , controlled for year (dummies), state (dummies), sample (dummies), school (dummies), gender, marital status, child, migrant, satisfaction with health, age of father, age of mother, potential experience. Early career is up to 5 years after entering employment first time.

Table A6: Models on subsample after 1991 and controlling for industry

Low Qualifications	After reunification			Industry (1-digit dummies)	
	Employment (odds ratio)	Log hourly wage	Temporary (odds ratio)	Log hourly wage	Temporary (odds ratio)
Middle (vs disadv.)	3.98 (1.42)**	0.01 (0.07)	1.25 (0.51)	0.03 (0.04)	1.02 (0.35)
Adv. (vs disadv.)	17.19 (9.56)**	0.10 (0.10)	0.64 (0.38)	0.14 (0.07)**	0.49 (0.28)
Unemployment rate (ROR)	0.81 (0.08)**	0.01 (0.02)	1.14 (0.13)	0.00 (0.01)	1.28 (0.11)**
Middle * Unemployment	1.13 (0.11)	0.01 (0.02)	0.77 (0.10)**	0.00 (0.01)	0.84 (0.08)*
Adv. * Unemployment	1.33 (0.22)*	-0.01 (0.03)	0.87 (0.16)	0.00 (0.02)	0.95 (0.16)
<i>Rho</i>	<i>0.59</i>	<i>0.72</i>	<i>0.48</i>	<i>0.63</i>	<i>0.64</i>
<i>N persons</i>	<i>946</i>	<i>444</i>	<i>444</i>	<i>729</i>	<i>729</i>
<i>N observations</i>	<i>2181</i>	<i>1035</i>	<i>1035</i>	<i>2409</i>	<i>2409</i>
<b>High Qualifications</b>					
Middle (vs disadv.)	1.83 (0.53)**	0.04 (0.04)	0.94 (0.26)	0.02 (0.03)	1.02 (0.23)
Adv. (vs disadv.)	3.32 (1.46)**	-0.02 (0.04)	1.37 (0.46)	-0.03 (0.03)	1.61 (0.46)*
Unemployment rate (state)	1.10 (0.13)	-0.02 (0.01)**	0.77 (0.07)**	-0.02 (0.01)**	0.80 (0.06)**
Middle * Unemployment	1.05 (0.10)	0.01 (0.01)	1.11 (0.10)	0.01 (0.01)**	1.11 (0.08)
Adv. * Unemployment	1.16 (0.16)	0.02 (0.01)	1.13 (0.11)	0.02 (0.01)**	1.11 (0.09)
<i>Rho</i>	<i>0.48</i>	<i>0.31</i>	<i>0.54</i>	<i>0.55</i>	<i>0.58</i>
<i>N persons</i>	<i>1351</i>	<i>1114</i>	<i>1114</i>	<i>1558</i>	<i>1558</i>
<i>N observations</i>	<i>5479</i>	<i>4461</i>	<i>4461</i>	<i>7003</i>	<i>7003</i>

\*:  $p < 0.1$ , \*\*:  $p < 0.05$ , controlled for year (dummies), state (dummies), sample (dummies), school (dummies), gender, marital status, child, migrant, satisfaction with health, age of father, age of mother, potential experience. After reunification includes only observations after 1991 and industry incorporates sic-2007 1-digit industry codes.