Supplement to "Like father, like son: Occupational choice, intergenerational persistence and misallocation"

(*Quantitative Economics*, Vol. 13, No. 2, May 2022, 629–679)

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Appendix SA: Further results on occupational persistence

Table S1. Occupational persistence, 2-digit level.

Occ. Code	Occupation	Likelihood Ratio	Occ. Share
11	Production Managers in Manuf., Construction	6.23	0.0133
12	Specialist Managers	2.03	0.0210
13	Office Managers	0.00	0.0129
14	Managers in Transport and Storing	4.69	0.0084
16	Managers in Farming	33.05	0.0084
17	Managers in Service Industry	1.92	0.0301
19	Managers and Administrators NEC	3.04	0.0083
21	Engineers and Technologists	4.79	0.0144
22	Health Professionals	0.00	0.0064
23	Teaching Professionals	1.67	0.0112
25	Business and Financial Professionals	12.19	0.0102
31	Draughtspersons	1.77	0.0109
32	Computer Analyst/Programmers	0.00	0.0301
34	Health Associate Professionals	10.66	0.0066
36	Business and Financial Associate Professionals	6.23	0.0186
37	Social Welfare Associate Professionals	0.00	0.0051
38	Literary, Artistic, and Sports Professionals	3.01	0.0264
39	Associate Professionals and Technical Occ.s NEC	2.52	0.0056
40	Administrative/Clerical Officers	2.71	0.0088
41	Numerical Clerks and Cashiers	0.00	0.0380
42	Filing and Record Clerks	2.05	0.0188
43	Clerks	0.82	0.0285

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 https://doi.org/10.3982/QE1375

TABLE S1. *Continued.*

Occ. Code	Occupation	Likelihood Ratio	Occ. Share
44	Stores and Despatch Clerks	3.16	0.0276
50	Construction Trades	5.81	0.0424
51	Metal Machining	1.64	0.0363
52	Electrical/Electronic Trades	6.43	0.0541
53	Metal Forming, Welding, and Related	2.57	0.0360
54	Vehicle Traders	5.78	0.0317
57	Woodworking Trades	7.81	0.0322
58	Food Preparation Trades	29.71	0.0103
59	Other Craft and Related Occupations NEC	0.50	0.0185
61	Security and Protective Service	5.08	0.0059
62	Catering Occupations	3.20	0.0268
71	Sales Representatives	1.72	0.0166
72	Sales Assistants and Check-out Operators	0.28	0.0534
80	Food, Drink, and Tobacco Process Operatives	35.81	0.0086
82	Chemicals, Paper, Plastics Operatives	5.42	0.0120
84	Metal Working Process Operatives	3.82	0.0088
85	Assemblers/Lineworkers	5.16	0.0132
86	Other Routine Process Operatives	3.51	0.0148
87	Road Transport Operatives	4.54	0.0320
88	Other Transport and Machinery Operatives	7.25	0.0055
89	Plant and Machine Operatives NEC	4.09	0.0138
90	Other Occ.s in Agriculture, Forestry, and Fishing	16.96	0.0108
92	Other Occ.s in Construction	11.78	0.0096
94	Other Occ.s in Communication	0.42	0.0080
95	Other Occ.s in Sales and Services	9.22	0.0336
99	Other Occ.s NEC	0.45	0.0120
	Average (unweighted)	5.69	
	Average (weighted)	4.71	

Note: The table presents the likelihood ratios for occupations in which at least 0.5% of the workforce are employed. Averages are taken with respect to all occupations, including the ones not reported in the table. The occupation is defined at the 2-digit level. *Source*: BHPS (1991–2008).

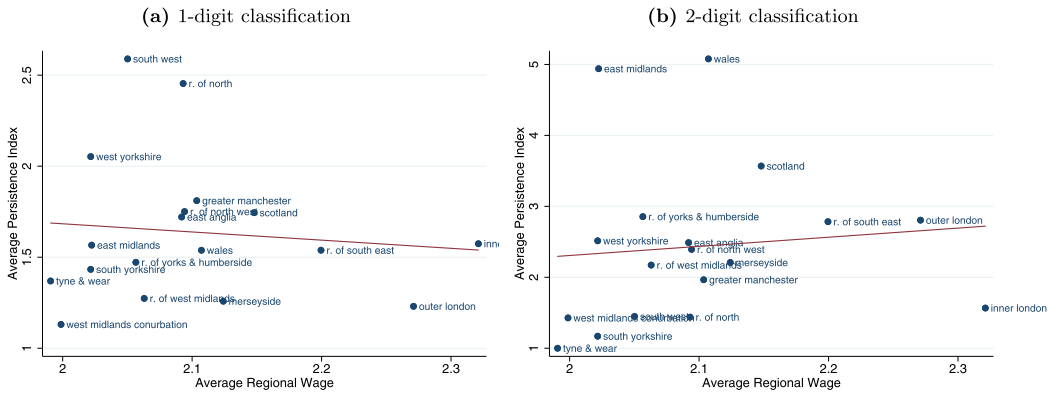

FIGURE S1. Occupational persistence and regional average wages. *Note*: Correlation between weighted average of occupation-specific likelihood ratios and average regional wage. *Source*: BHPS 1991–2008.

TABLE S2. Occupational persistence by occupation-specific father's wage.

Occ. Code	Occupation (Contemporaneous)	Likelihood Ratio		
		Bottom 33%	Mid 33%	Top 33%
1	Managers and Administrators	1.48	0.83	1.50
2	Professional	2.98	2.75	2.26
3	Associate Professional and Technical	1.41	1.91	1.57
4	Clerical and Secretarial	1.43	1.45	1.01
5	Craft and Related	1.64	1.58	1.46
6	Personal and Protective Service	1.81	2.72	0.50
7	Sales	0.99	1.58	1.45
8	Plant and Machine	2.49	1.48	1.88
9	Agriculture and Elementary	3.02	2.31	2.72
	Average 1-digit (unweighted)	1.92	1.85	1.60
	Average 1-digit (weighted)	1.80	1.64	1.64
11	Production Managers in Manuf., Construction	10.50	2.70	5.72
12	Specialist Managers	1.07	1.47	3.25
13	Office Managers	0.00	0.00	0.00
14	Managers in Transport and Storing	0.00	14.46	0.00
16	Managers in Farming	34.57	29.07	35.01
17	Managers in Service Industry	1.75	0.44	2.94
19	Managers and Administrators NEC	0.00	6.36	2.93
21	Engineers and Technologists	3.31	7.89	3.56
22	Health Professionals	0.00	0.00	0.00
23	Teaching Professionals	5.24	0.00	0.00
25	Business and Financial Professionals	12.19	14.07	13.01
31	Draughtspersons	0.00	0.00	4.76
32	Computer Analyst/Programmers	0.00	0.00	0.00
34	Health Associate Professionals	0.00	0.00	28.04
36	Business and Financial Associate Professionals	3.42	12.40	3.58
37	Social Welfare Associate Professionals	0.00	0.00	0.00
38	Literary, Artistic, and Sports Professionals	0.00	7.93	2.89
39	Associate Professionals and Technical Occupations NEC	0.00	3.63	3.76
40	Administrative/Clerical Officers	6.58	0.00	1.84
41	Numerical Clerks and Cashiers	0.00	0.00	0.00
42	Filing and Record Clerks	0.00	6.30	0.00
43	Clerks	0.00	2.58	0.00
44	Stores and Dispatch Clerks	4.85	3.32	1.66
50	Construction Trades	7.05	2.25	7.73
51	Metal Machining	0.64	2.26	2.00
52	Electrical/Electronic Trades	6.31	8.11	4.95
53	Metal Forming, Welding, and Related	3.63	1.25	2.86
54	Vehicle Traders	6.59	2.85	6.88
57	Woodworking Trades	4.96	8.54	9.46
58	Food Preparation Trades	48.93	18.49	24.09
59	Other Craft and Related Occupations NEC	1.48	0.33	0.00
61	Security and Protective Service	10.08	2.30	3.49
62	Catering Occupations	0.00	0.63	4.10
71	Sales Representatives	0.00	0.00	4.69
72	Sales Assistants and Check-out Operators	0.00	0.13	0.58
80	Food, Drink, and Tobacco Process Operatives	40.91	45.66	30.75
82	Chemicals, Paper, Plastics Operatives	3.18	0.00	12.74

TABLE S2. *Continued.*

Occ. Code	Occupation (Contemporaneous)	Likelihood Ratio		
		Bottom 33%	Mid 33%	Top 33%
84	Metal Working Process Operatives	9.42	0.00	2.63
85	Assemblers/Lineworkers	12.07	4.53	0.00
86	Other Routine Process Operatives	6.55	5.32	0.00
87	Road Transport Operatives	5.10	3.79	4.76
88	Other Transport and Machinery Operatives	0.00	11.75	9.86
89	Plant and Machine Operatives NEC	4.20	4.33	3.84
90	Other Occupations in Agriculture, Forestry, and Fishing	11.94	10.37	25.04
92	Other Occupations in Construction	39.07	3.20	0.00
94	Other Occupations in Communication	0.00	0.00	1.05
95	Other Occupations in Sales and Services	0.65	7.39	18.02
99	Other Occupations NEC	0.51	0.00	0.79
	Average 2-digit (unweighted)	5.24	5.91	6.21
	Average 2-digit (weighted)	4.43	4.59	5.05

Note: The table presents the likelihood ratios for occupations in which at least 0.5% of the workforce are employed. Averages are taken with respect to all occupations, including the ones not reported in the table. The occupation is defined at the 1-digit and at the 2-digit level. The sample is partitioned by the occupation-specific father's wage. *Source*: BHPS (1991–2008).

TABLE S3. Regressions of occupational choice.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Son is in:	Occ. 1	Occ. 2	Occ. 3	Occ. 4	Occ. 5	Occ. 6	Occ. 7	Occ. 8	Occ. 9
Father is in:									
Occ. 1	0.0335								
	(0.003)								
Occ. 2		0.0365							
		(0.003)							
Occ. 3			0.0550						
			(0.005)						
Occ. 4				0.0411					
				(0.005)					
Occ. 5					0.151				
					(0.004)				
Occ. 6						0.0398			
						(0.005)			
Occ. 7							0.0159		
							(0.006)		
Occ. 8								0.127	
								(0.003)	
Occ. 9									0.105
									(0.006)
N	62,114	62,114	62,114	62,114	62,114	62,114	62,114	62,114	62,114
R^2	0.073	0.196	0.079	0.047	0.106	0.053	0.076	0.084	0.089

Note: All models include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, and quarter. Occupational codes (1-digit level) are as follows: (1) Managers and Administrators; (2) Professional; (3) Associate Professional; (4) Clerical and Secretarial; (5) Craft and Related; (6) Personal and Protective Service; (7) Sales; (8) Plant and Machine; (9) Agriculture and Elementary. *Source*: BHPS (1991–2008). Standard errors in parentheses.

TABLE S4. Occupational persistence by age.

Occ. Code	Occupation (Contemporaneous)	Likelihood Ratio <20	20–24	25–29	30+
1	Managers and Administrators	0.40	0.93	1.69	2.48
2	Professional	0.71	1.59	3.81	4.28
3	Associate Professional and Technical	0.64	0.86	2.55	2.80
4	Clerical and Secretarial	1.28	0.90	1.07	1.71
5	Craft and Related	1.79	1.59	1.42	1.27
6	Personal and Protective Service	1.90	1.77	1.89	0.32
7	Sales	2.62	1.59	0.76	0.63
8	Plant and Machine	0.93	2.03	2.24	2.24
9	Agriculture and Elementary	4.74	2.29	2.03	2.38
	Average 1-digit (unweighted)	1.67	1.51	1.94	2.01
	Average 1-digit (weighted)	2.22	1.49	1.95	2.26
11	Production Managers in Manuf., Construction	0.00	2.79	9.11	15.47
12	Specialist Managers	0.97	0.66	3.81	4.01
13	Office Managers	0.00	0.00	0.00	0.00
14	Managers in Transport and Storing	0.00	0.00	0.00	20.35
16	Managers in Farming	23.85	34.28	30.48	41.38
17	Managers in Service Industry	0.00	1.24	4.17	1.47
19	Managers and Administrators NEC	0.00	4.93	4.29	0.00
21	Engineers and Technologists	0.00	2.33	8.82	8.29
22	Health Professionals	0.00	0.00	0.00	0.00
23	Teaching Professionals	0.00	0.00	0.87	8.84
25	Business and Financial Professionals	0.00	1.59	27.07	–
31	Draughtspersons	0.00	3.56	0.00	0.00
32	Computer Analyst/Programmers	0.00	0.00	0.00	0.00
34	Health Associate Professionals	60.76	0.00	0.00	0.00
36	Business and Financial Associate Professionals	8.94	4.88	4.38	11.86
37	Social Welfare Associate Professionals	0.00	0.00	0.00	–
38	Literary, Artistic, and Sports Professionals	0.00	5.90	5.70	0.00
39	Associate Professionals and Technical Occupations NEC	5.83	0.00	0.00	7.48
40	Administrative/Clerical Officers	0.00	1.51	0.82	6.98
41	Numerical Clerks and Cashiers	0.00	0.00	0.00	0.00
42	Filing and Record Clerks	3.54	2.60	0.00	–
43	Clerks	1.48	1.84	0.00	0.00
44	Stores and Despatch Clerks	0.00	0.00	3.21	7.39
50	Construction Trades	7.58	3.98	5.95	7.34
51	Metal Machining	3.19	1.20	1.02	0.00
52	Electrical/Electronic Trades	5.86	6.74	7.49	4.75
53	Metal Forming, Welding, and Related	3.59	3.88	1.51	0.00
54	Vehicle Traders	3.80	6.92	5.33	4.87
57	Woodworking Trades	11.19	6.99	5.36	5.95
58	Food Preparation Trades	28.18	24.09	36.53	20.80
59	Other Craft and Related Occupations NEC	1.62	0.22	0.00	0.00
61	Security and Protective Service	0.00	5.30	11.12	0.00
62	Catering Occupations	5.65	0.00	0.00	0.00
71	Sales Representatives	0.58	3.42	0.00	0.00
72	Sales Assistants and Check-out Operators	0.47	0.00	0.00	0.56
80	Food, Drink, and Tobacco Process Operatives	98.95	4.97	0.00	–
82	Chemicals, Paper, Plastics Operatives	0.32	8.95	5.60	0.00

TABLE S4. *Continued.*

Occ. Code	Occupation (Contemporaneous)	Likelihood Ratio <20	20–24	25–29	30+
84	Metal Working Process Operatives	5.51	0.00	10.47	–
85	Assemblers/Lineworkers	8.28	5.21	4.72	0.00
86	Other Routine Process Operatives	14.85	0.00	0.00	0.00
87	Road Transport Operatives	0.85	3.94	5.82	6.03
88	Other Transport and Machinery Operatives	0.00	0.00	0.00	39.81
89	Plant and Machine Operatives NEC	5.99	5.04	4.83	0.68
90	Other Occupations in Agriculture, Forestry, and Fishing	30.40	0.00	25.95	8.79
92	Other Occupations in Construction	31.21	0.00	0.00	0.00
94	Other Occupations in Communication	0.00	0.00	1.14	0.00
95	Other Occupations in Sales and Services	4.67	7.70	12.99	9.77
99	Other Occupations NEC	0.00	0.70	0.49	0.00
	Average 2-digit (unweighted)	6.27	5.53	5.13	4.05
	Average 2-digit (weighted)	5.21	3.83	4.48	3.60

Note: The table presents the likelihood ratios for occupations in which at least 0.5% of the workforce are employed. Averages are taken with respect to all occupations, including the ones not reported in the table. The occupation is defined at the 1-digit and at the 2-digit level. The sample is partitioned by age groups. *Source*: BHPS (1991–2008).

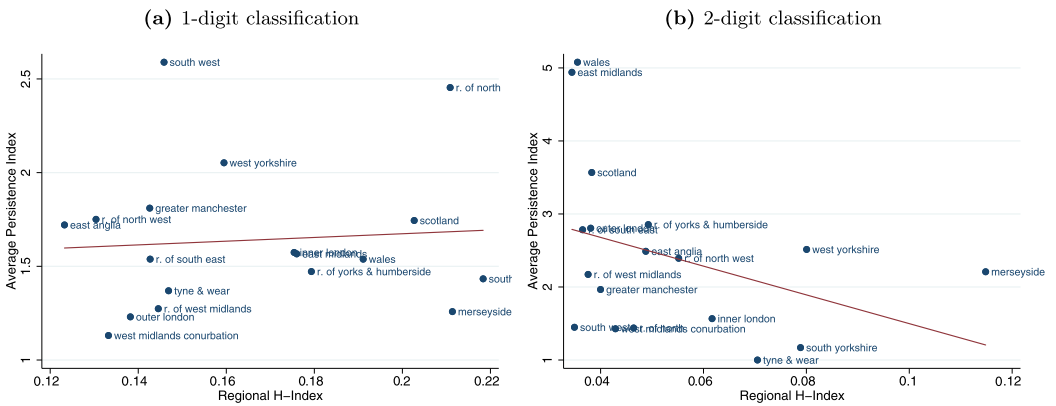

FIGURE S2. Occupational persistence and regional occupational structure. *Note*: Correlation between weighted average of occupation-specific likelihood ratios and Herfindahl index of occupations. *Source*: BHPS 1991–2008.

Appendix SB: Further results on job-finding probabilities

Table S5. Regressions of job-finding probability, 2-digit classification.

	(1) POLS	(2) POLS	(3) POLS	(4) FE	(5) POLS	(6) POLS
Father in same occupation ($\pi_{i,t}$)	0.0137	0.0275	0.0422	0.0177		
	(0.023)	(0.024)	(0.025)	(0.046)		
Share of time in same occ. ($\bar{\pi}_i$)					0.0618	
					(0.035)	
Father in same most frequent occ. (ϕ_i)						−0.0000
						(0.020)
Average in-sample JF	0.125	0.125	0.125	0.125	0.125	0.125
Controls:						
Age, education, occupation		✓	✓	✓	✓	✓
All other controls			✓	✓	✓	✓
N	4142	4142	4142	4142	4142	4142
R^2	0.000	0.012	0.056	0.045	0.056	0.055
Number of pairs	–	–	–	401	–	–

Note: The dependent variable is the job-finding event. Models 1–3, 5, and 6 are pooled OLS regressions; model 4 is a fixed effects regression. Models 3–6 include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, father's age, quarter, and occupation of search/employment. The occupation is defined at the 2-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

TABLE S6. Regressions of job-finding probability: robustness.

	(1) POLS	(2) POLS	(3) POLS	(4) FE	(5) POLS	(6) POLS
Panel A—No self-employment spells						
Father in same occupation ($\pi_{i,t}$)	0.0249	0.0376	0.0481	0.0564		
	(0.014)	(0.015)	(0.016)	(0.025)		
Share of time in same occ. ($\bar{\pi}_i$)					0.0445	
					(0.025)	
Father in same most frequent occ. (ϕ_i)						0.0158
						(0.015)
Average in-sample JF	0.125	0.125	0.125	0.125	0.125	0.125
Controls:						
Age, education, occupation		✓	✓	✓	✓	✓
All other controls			✓	✓	✓	✓
N	4098	4098	4098	4098	4098	4098
R^2	0.001	0.013	0.055	0.047	0.054	0.053
Number of pairs				400		
Panel B—No self-employed individuals						
Father in same occupation ($\pi_{i,t}$)	0.0319	0.0711	0.0791	0.0894		
	(0.020)	(0.022)	(0.024)	(0.038)		
Share of time in same occ. ($\bar{\pi}_i$)					0.0700	
					(0.036)	
Father in same most frequent occ. (ϕ_i)						0.0311
						(0.023)
Average in-sample JF	0.115	0.115	0.115	0.115	0.115	0.115
Controls:						
Age, education, occupation		✓	✓	✓	✓	✓
All other controls			✓	✓	✓	✓
N	2181	2181	2181	2181	2181	2181
R^2	0.001	0.024	0.082	0.072	0.079	0.078
Number of pairs				224		

Note: Models 1–3, 5, and 6 are pooled OLS regressions; model 4 is a fixed effects regression. Models 3–6 include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, father's age, quarter, and occupation of search/employment. In Panel A, we exclude the spells of self-employment from the estimation. In Panel B, we exclude all the workers who report having been self-employed at least once in their lifetime. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

TABLE S7. Regressions of job-finding probability on the father's tenure.

	(1)	(2)
Father in same occupation ($\pi_{i,t}$)	0.0404	0.0437
	(0.018)	(0.018)
Father with high tenure (dummy: 1 if above average) ($ht_{i,t}$)	−0.0266	
	(0.014)	
Interaction term ($\pi_{i,t} * ht_{i,t}$)	0.0634	
	(0.039)	
Log of father's tenure in years ($\log(t_{i,t})$)		−0.0051
		(0.006)
Interaction term ($\pi_{i,t} * \log(t_{i,t})$)		0.0207
		(0.014)
Controls:		
All controls	✓	✓
N	4142	3726
R^2	0.059	0.062

Note: Both models are pooled OLS regressions, and models include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, father's age, quarter, and occupation of search/employment. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

TABLE S8. Regressions of job-finding probability: heterogeneity by education.

	(1) POLS	(2) POLS	(3) POLS	(4) POLS
Father in same occupation ($\pi_{i,t}$)	0.0389	0.0487		
	(0.016)	(0.017)		
Interaction ($\pi_{i,t}$* college dummy)	0.0447	0.0539		
	(0.055)	(0.056)		
Share of time in same occ. ($\bar{\pi}_i$)			0.0474	
			(0.026)	
Interaction ($\bar{\pi}_i$* college dummy)			0.145	
			(0.092)	
Father in same most frequent occ. (ϕ_i)				0.0090
				(0.016)
Interaction (ϕ_i* college dummy)				0.0815
				(0.055)
College	0.0757	0.0524	0.0425	0.0475
	(0.019)	(0.021)	(0.022)	(0.021)
Controls:				
Age, education, occupation	✓	✓	✓	✓
All other controls		✓	✓	✓
N	4142	4142	4142	4142
R^2	0.012	0.057	0.057	0.056

Note: All models include a third-degree polynomial in age, dummy for college, region of residence, smoking behavior, marital status, ethnicity, father's age, quarter, and occupation of search/employment. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

TABLE S9. Regressions of job-finding probability: heterogeneity by age.

	(1) POLS	(2) POLS	(3) POLS	(4) POLS
Father in same occupation ($\pi_{i,t}$)	0.0196	0.0253		
	(0.020)	(0.021)		
Interaction ($\pi_{i,t} * Age < 22$ dummy)	0.0551	0.0677		
	(0.029)	(0.030)		
Share of time in same occ. ($\bar{\pi}_i$)			0.0419	
			(0.031)	
Interaction ($\bar{\pi}_i * Age < 22$ dummy)			0.0362	
			(0.041)	
Father in same most frequent occ. (ϕ_i)				0.0202
				(0.020)
Interaction ($\phi_i * Age < 22$ dummy)				−0.0080
				(0.027)
Controls:				
Age, education, occupation	✓	✓	✓	✓
All other controls		✓	✓	✓
N	4142	4142	4142	4142
R^2	0.013	0.058	0.056	0.055

Note: All models include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, father's age, quarter, and occupation of search/employment. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

APPENDIX SC: FURTHER RESULTS ON WAGES

TABLE S10. Regressions of log hourly wage, 2-digit classification.

	(1) POLS	(2) POLS	(3) POLS	(4) FE	(5) POLS	(6) POLS
Father in same occupation ($\pi_{i,t}$)	−0.0336	−0.115	−0.0718	−0.0017		
	(0.032)	(0.024)	(0.021)	(0.022)		
Share of time in same occ. ($\bar{\pi}_i$)					−0.151	
					(0.032)	
Father in same most frequent occ. (ϕ_i)						−0.0394
						(0.020)
Controls:						
Age, education, occupation		✓	✓	✓	✓	✓
All other controls			✓	✓	✓	✓
N	4776	4776	4776	4776	4776	4776
R^2	0.000	0.456	0.602	0.624	0.603	0.601
Number of pairs				850		

Note: Models 1–3, 5, and 6 are pooled OLS regressions; model 4 is a fixed effects regression. Models 3–6 include a third-degree polynomial in age, dummies for education and occupation, second-order polynomials in occupational tenure and potential labor market experience, firm size, region of residence, smoking behavior, marital status, ethnicity, and year. The occupation is defined at the 2-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

TABLE S11. Regressions of log hourly wage: robustness.

	(1) POLS	(2) POLS	(3) POLS	(4) FE	(5) POLS	(6) POLS
Panel A—Trimming top and bottom 1%						
Father in same occupation ($\pi_{i,t}$)	−0.0007	−0.0957	−0.0731	−0.0070		
	(0.019)	(0.015)	(0.013)	(0.013)		
Share of time in same occ. ($\bar{\pi}_i$)					−0.120	
					(0.019)	
Father in same most frequent occ. (ϕ_i)						−0.0209
						(0.012)
Controls:						
Age, education, occupation		✓	✓	✓	✓	✓
All other controls			✓	✓	✓	✓
N	4664	4664	4664	4664	4664	4664
R^2	0.000	0.452	0.602	0.639	0.602	0.599
Number of pairs				833		
Panel B—Trimming top and bottom 5%						
Father in same occupation ($\pi_{i,t}$)	0.0111	−0.0628	−0.0504	−0.0036		
	(0.017)	(0.014)	(0.012)	(0.012)		
Share of time in same occ. ($\bar{\pi}_i$)					−0.0907	
					(0.019)	
Father in same most frequent occ. (ϕ_i)						−0.0220
						(0.012)
Controls:						
Age, education, occupation		✓	✓	✓	✓	✓
All other controls			✓	✓	✓	✓
N	4159	4159	4159	4159	4159	4159
R^2	0.000	0.375	0.540	0.606	0.541	0.539
Number of pairs				788		

Note: Models 1–3, 5, and 6 are pooled OLS regressions; model 4 is a fixed effects regression. Models 3–6 include a third-degree polynomial in age, dummies for education and occupation, second-order polynomials in occupational tenure and potential labor market experience, firm size, region of residence, smoking behavior, marital status, ethnicity, and year. Panel A excludes all wage observations above percentile 99 or below percentile 1 from the estimating sample. Panel B excludes all wage observations above percentile 95 or below percentile 5 from the estimating sample. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

Appendix SD: Further results on labor market outcomes

Table S12. Regressions of occupational persistence.

	(1)	(2)	(3)	(4)
Father's log wage	0.0231	0.0257		
	(0.010)	(0.010)		
Log wage		−0.0330		
		(0.011)		
Father's average log wage			0.0370	0.0421
			(0.012)	(0.013)
Average log wage				−0.0339
				(0.013)
Average in-sample persistence rate	0.061	0.061	0.061	0.061
Controls:				
All controls	✓	✓	✓	✓
N	3467	3467	3467	3467
R^2	0.084	0.087	0.085	0.087

Note: All models are pooled OLS regressions, and include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, father's age, father's occupation, quarter, and occupation of search/employment. The occupation is defined at the 2-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

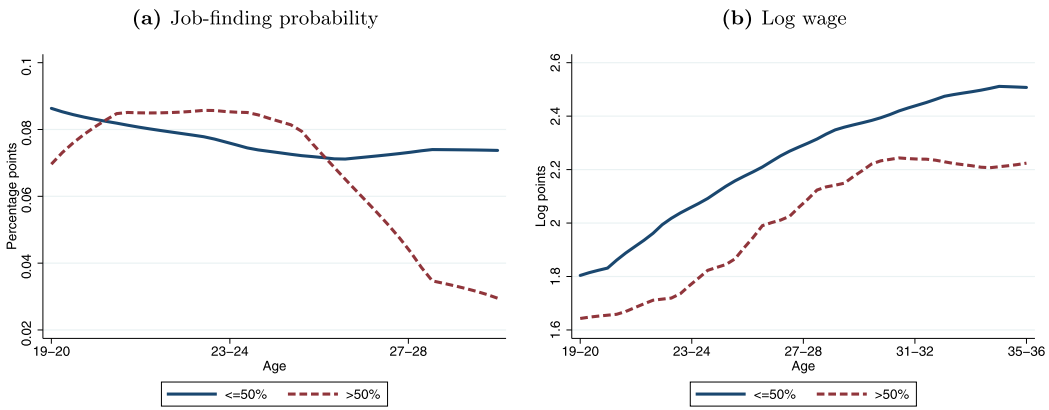

Figure S3. Labor market outcomes, followers versus movers: lifetime 2-digit classification. *Note*: Average labor market outcomes by proportion of employed work life spent in the same occupation as the father. The occupation is defined at the 2-digit level. *Source*: BHPS 1991–2008.

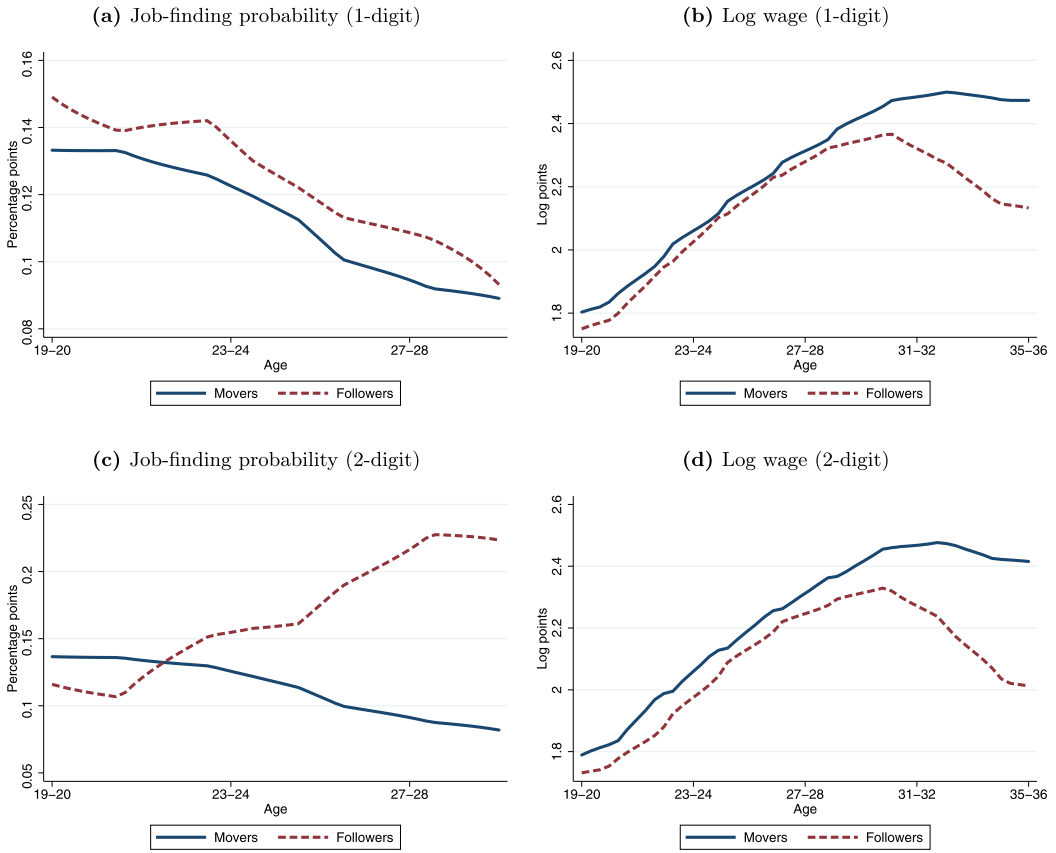

FIGURE S4. Labor market outcomes, followers versus movers: contemporaneous definition. *Note*: Average labor market outcomes of workers in the same occupation as the father: followers versus movers based on contemporaneous information. *Source*: BHPS 1991–2008.

APPENDIX SE: FURTHER EMPIRICAL EVIDENCE

SE.1 *Intergenerational occupational persistence and occupational attachment*

In this section, we investigate whether the phenomenon of occupational following is persistent over the life cycle. This is important because young workers, who are potentially sampling different occupations, may be those who are driving the likelihood ratios estimated in the main text. More importantly, these young workers might be using their father's occupation as a stepping stone to their eventual occupation (possibly to avoid unemployment). If this is the case, then occupational persistence would be a short-run phenomenon, with limited consequences for the allocation of workers to occupations.

First, we document that likelihood ratios are generally not decreasing over the life cycle. For instance, the average (weighted) likelihood ratio at the 1-digit level is 1.62 for workers younger than 20, as opposed to 1.83 for workers aged 25–39 and 1.92 for workers aged 30+ (see Table S4; the corresponding figures at the 2-digit level are 5.21, 4.48, and 3.60).

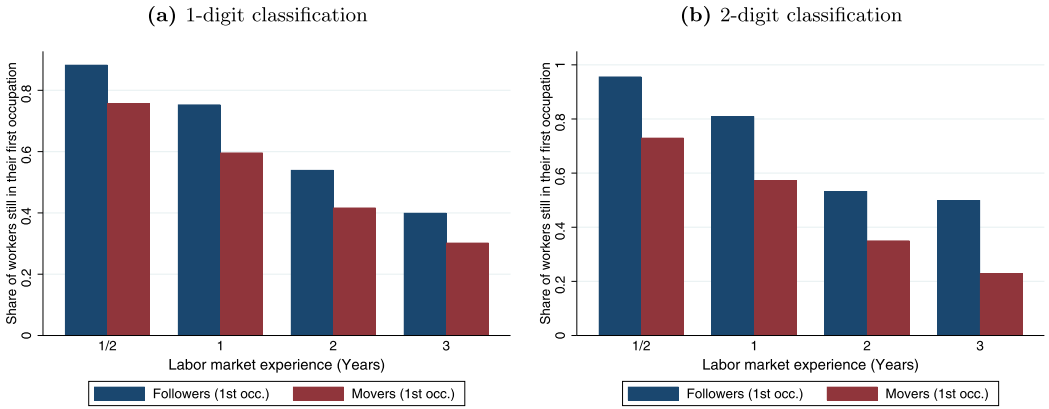

FIGURE S5. Occupational attachment (followers vs. movers). *Note*: Share of workers still in their first occupation, by years of labor market experience. Authors' calculations. *Source*: BHPS 1991–2008.

Second, we look at the length of the occupational spells of followers, as opposed to those of movers. The average occupational tenure is 2.16 years for followers, and 1.73 years for movers.[1] This is true also for the occupations chosen very early in an individual's career. Figure S5 plots the share of workers still in their first occupation (both at the 1-digit and 2-digit level) against the number of years of labor market experience, for followers and movers separately.

We can see that a worker who starts his career in the same occupation as his father's is substantially less likely to exhibit occupational mobility. For instance, after 2 years from the start of their first employment spell, about 50% of occupational followers will not have changed occupation as compared to about 40% of occupational movers.[2] At the same time, these statistics reveal a large degree of *hysteresis* in the occupational choice. In other words, the initial occupation is a good predictor of the current one even several years after the start of the employment spell. In this sense, the father's influence on the initial occupational choice may have long-lasting consequences for his son's outcomes and the aggregate allocation.

As an additional piece of evidence, we look at whether the contemporaneous presence of the father in the same occupation is associated with the probability of changing occupation. To this end, we run the following regression:

$$OC_{i,t} = \alpha + \beta \pi_{i,t-1} + \boldsymbol{\gamma} \boldsymbol{X}_{i,t} + \epsilon_{i,t}, \tag{S1}$$

where $OC_{i,t}$ is a dummy taking the value 1 if the occupation at time t is different from the one at $t-1$ (i.e., there has been an occupational switch)[3] and 0 otherwise; $\pi_{i,t}$ is

[1] When we restrict our attention only to the spells that we observe from the start, we find again that followers tend to be more attached to their occupation (average tenure of 1.84 years versus 1.69 years). Similar figures emerge at the 2-digit level aggregation.

[2] In Figure S5, we do not count flows back into the original occupation as *still in the same occupation*. If we were to do that, we would find a slightly larger difference between followers and movers.

[3] The occupational switch can take place either through unemployment (where we compare the previous and subsequent occupations) or not (direct employment-to-employment switch).

TABLE S13. Regressions of occupational change (transition from one occupation to another).

	(1) POLS	(2) FE
Father in same occupation ($\pi_{i,t-1}$)	−0.0065	−0.0075
	(0.002)	(0.002)
Average in-sample occ. change rate	0.0265	0.0265
Controls:		
All controls	✓	✓
N	60,488	60,488
R^2	0.015	0.014
Number of pairs	–	1006

Note: Column 1 is a pooled OLS regression, column 2 is a fixed effects regression. All models include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, quarter, and occupation of employment. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

a dummy variable that takes the value 1 if the occupation of son i and his father coincide at time t, and 0 otherwise; $\boldsymbol{X}_{i,t}$ is a vector of control variables that include a third-degree age polynomial, dummies for educational categories and occupational groups (observed for the employed, imputed for the unemployed), marital status, ethnic group, smoking behavior (to capture health level), region of residence, and quarter dummies; $\boldsymbol{\epsilon}_{i,t}$ is the idiosyncratic error term.

We estimate equation (S1) with pooled OLS and fixed effects, with the estimates of β shown in Table S13.

We find that if the father is employed in the same occupation, there is a substantial reduction in the probability of changing occupation. The estimated coefficient is in the region of −0.6/0.8 p.p., which represents about one-third of the average in-sample monthly occupational change rate (p.p.) at the 1-digit level.[4] One possible interpretation is that some workers are more mobile than others in general and, therefore, they will happen to be less often in the same occupation as their father, thus mechanically generating a correlation between the two variables. However, notice that: (i) we are exploiting the exact timing of the transitions (using the lagged persistence variable), thus making this interpretation less likely; (ii) in column 2, we are controlling for individual fixed effects, ruling out this type of explanation. The estimated coefficient, which is quite stable across specifications, suggests that a worker is more reluctant to leave his father's occupation, even on top of any unobserved fixed heterogeneity.

SE.2 *Unemployment risk and wages*

In this subsection, we exploit the entire working life of the workers in the sample. For each worker i, we compute the share of time spent employed $\bar{E}_i = \frac{\sum_t E_{i,t}}{\sum_t E_{i,t}+U_{i,t}}$ (a measure of his employment prospects) and the average monthly wage[5] earned throughout his

[4] These results are confirmed also at the 2-digit level, where we find a coefficient of −1.6/−1.7 p.p., that corresponds to about half of the average mobility rate (see Table S14).

[5] This measure incorporates the unemployment risk margin as well. We construct it in the following manner: first, for each year, we multiply the monthly wage by the number of months that the individual is

TABLE S14. Regressions of occupational change (transition from one occupation to another).

	(1) POLS	(2) FE
Father in same occupation ($\pi_{i,t-1}$)	−0.0172	−0.0163
	(0.003)	(0.004)
Average in-sample occ. change rate	0.0335	0.0335
Controls:		
All controls	✓	✓
N	60,502	60,502
R^2	0.020	0.019
Number of pairs	–	1006

Note: Column 1 is a pooled OLS regression, column 2 is a fixed effects regression. All models include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, quarter, and occupation of employment. The occupation is defined at the 2-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

working life $\bar{W}_i$ (a measure of lifetime labor earnings). In order to compute these lifetime statistics, we include observations from age 25 onwards.[6]

In Table S15, we show the partial correlation between the aforementioned variables, controlling for fixed characteristics of individuals (i.e., education and race). As one can see, occupational followers tend to have lower wages but better employment prospects (columns 1 and 2). Interestingly, employment prospects and wages are generally positively correlated (column 3), but their respective correlations with $\bar{\pi}_i$ have opposite signs. The sign of both of these correlations is robust to the introduction of the other variable as a control. In other words, conditional on lifetime employment prospects, followers tend to have lower wages (up to −27%; column 4); and conditional on the average lifetime wage, tend to spend more time employed (on average, they are employed for 4.2 p.p. more of their total time spent in the labor force; column 5). These results are even stronger at the 2-digit level (see Table S16).

employed; we then sum them over years; and finally, we divide the total by the number of available observations for each individual (to correct for the unbalanced nature of the panel).

[6]The rationale behind this is to ensure that we are not capturing effects related to variation in the age of entry into the labor market.

TABLE S15. Regressions of log average wage ($\bar{W}_i$) and share of lifetime spent employed ($\bar{E}_i$).

	(1) $\bar{W}_i$	(2) $\bar{E}_i$	(3) $\bar{E}_i$	(4) $\bar{W}_i$	(5) $\bar{E}_i$
Share of time in same occ. as father ($\bar{\pi}_i$)	−0.257	0.0058		−0.269	0.0415
	(0.072)	(0.018)		(0.060)	(0.016)
Log avg. mean wage ($\bar{W}_i$)			0.135		0.139
			(0.010)		(0.010)
Share of lifetime employed ($\bar{E}_i$)				2.081	
				(0.143)	
Controls:					
Education, race	✓	✓	✓	✓	✓
N	531	531	531	531	531
R^2	0.063	0.004	0.283	0.334	0.293

Note: All models include dummies for education and ethnicity. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

TABLE S16. Regressions of log average wage ($\bar{W}_i$) and share of lifetime spent employed ($\bar{E}_i$).

	(1) $\bar{W}_i$	(2) $\bar{E}_i$	(3) $\bar{E}_i$	(4) $\bar{W}_i$	(5) $\bar{E}_i$
Share of time in same occ. as father ($\bar{\pi}_i$)	−0.316	0.0365		−0.393	0.0804
	(0.115)	(0.029)		(0.097)	(0.025)
Log average wage ($\bar{W}_i$)			0.135		0.139
			(0.010)		(0.009)
Share of lifetime employed ($\bar{E}_i$)				2.104	
				(0.144)	
Controls:					
Education, race	✓	✓	✓	✓	✓
N	531	531	531	531	531
R^2	0.054	0.007	0.283	0.330	0.297

Note: All models include dummies for education and ethnicity. The occupation is defined at the 2-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

Appendix SF: Laws of motion

The Markov matrices associated to the evolution of human capital h and social capital n can be written as follows:

$$P^{H,e} = \begin{array}{c} \\ h_1 \\ h_2 \\ \vdots \\ h_{K^h} \end{array} \begin{array}{c} \begin{array}{ccccc} h_1 & h_2 & h_3 & \dots & h_{K^h} \end{array} \\ \begin{pmatrix} 1-p_h^+ & p_h^+ & 0 & \dots & 0 \\ 0 & 1-p_h^+ & p_h^+ & \dots & 0 \\ \vdots & \vdots & \vdots & \dots & \vdots \\ 0 & 0 & 0 & \dots & 1 \end{pmatrix} \end{array},$$

$$P^{H,u} = \begin{array}{c} \\ h_1 \\ h_2 \\ \vdots \\ h_{K^h} \end{array} \begin{array}{c} \begin{array}{ccccc} h_1 & h_2 & h_3 & \dots & h_{K^h} \end{array} \\ \begin{pmatrix} 1 & 0 & 0 & \dots & 0 \\ p_h^- & 1-p_h^- & 0 & \dots & 0 \\ \vdots & \vdots & \vdots & \dots & \vdots \\ 0 & 0 & 0 & \dots & 1-p_h^- \end{pmatrix} \end{array}, \tag{S2}$$

$$P^{N,e} = \begin{array}{c} \\ n_1 \\ n_2 \\ \vdots \\ n_{K^h} \end{array} \begin{array}{c} \begin{array}{ccccc} n_1 & n_2 & n_3 & \dots & n_{K^n} \end{array} \\ \begin{pmatrix} 1-p_n^+ & p_n^+ & 0 & \dots & 0 \\ 0 & 1-p_n^+ & p_n^+ & \dots & 0 \\ \vdots & \vdots & \vdots & \dots & \vdots \\ 0 & 0 & 0 & \dots & 1 \end{pmatrix} \end{array},$$

$$P^{N,u} = \begin{array}{c} \\ n_1 \\ n_2 \\ \vdots \\ n_{K^n} \end{array} \begin{array}{c} \begin{array}{ccccc} n_1 & n_2 & n_3 & \dots & n_{K^n} \end{array} \\ \begin{pmatrix} 1 & 0 & 0 & \dots & 0 \\ p_n^- & 1-p_n^- & 0 & \dots & 0 \\ \vdots & \vdots & \vdots & \dots & \vdots \\ 0 & 0 & 0 & \dots & 1-p_n^- \end{pmatrix} \end{array}. \tag{S3}$$

Appendix SG: Worker flows

The evolution of the stock of unemployed and employed workers is the result of optimal relocation decisions, age shocks and labor market shocks (creation of new matches and destruction of existing ones). Define $g^k_\Omega(\tilde{\Omega}) = P(\Omega' = \Omega|\tilde{\Omega})$ to be the probability measure that a worker of type $\tilde{\Omega}$ with employment status k changes to type Ω in the following period. This probability is defined over the multidimensional distribution of Ω. In particular, it involves changes in: the temporary preference vectors (the son's or his father's),

occupation-specific human capital and networks stocks (the son's or his father's), the father's occupation, or employment status.

Define $u'_{o,F}(\Omega)$ to be the subsequent period's measure of unemployed fathers of type Ω in occupation o:

$$\begin{aligned} u'_{o,F}(\Omega) = \int & \big[\hat{u}_{o,F}(\tilde{\Omega})\big(1 - R^U_{o,F}(\tilde{\Omega})\big)\big(1 - p_{o,F}(\tilde{\Omega})\big)g^U_\Omega(\tilde{\Omega}) \\ & + \hat{e}_{o,F}(\tilde{\Omega})\big(1 - R^E_{o,F}(\tilde{\Omega})\big)\delta g^E_\Omega(\tilde{\Omega})\big]\, d\tilde{\Omega} \\ & + \sum_{\tilde{o}\neq o} \int \big[\hat{u}_{\tilde{o},F}(\tilde{\Omega})R^U_{\tilde{o},F}(\tilde{\Omega}) + \hat{e}_{\tilde{o},F}(\tilde{\Omega})R^E_{\tilde{o},F}(\tilde{\Omega})\big] \\ & \times \mathbb{1}\big\{j^*_F(\tilde{\Omega}) = o\big\}\big(1 - p_{o,F}(\tilde{\Omega})\big)g^U_\Omega(\tilde{\Omega})\, d\tilde{\Omega}, \end{aligned} \tag{S4}$$

where $\hat{u}_{o,F} = u_{o,F}(1-\zeta) + u_{o,S}\zeta$, and $\hat{e}_{o,F} = e_{o,F}(1-\zeta) + e_{o,S}\zeta$. These are the measures of workers after the realization of ageing shock, thus they include fathers who did not die and sons who just became fathers.

Equation (S4) includes four different terms: the first two refer respectively to unemployed workers in occupation o who decide not to relocate and do not find a job, and employed workers in occupation o who do not relocate and lose their job; the last two are (unemployed and employed) workers who decide to relocate into occupation o and do not find a job.

For employed fathers, $e'_o(\Omega)$ is defined as

$$\begin{aligned} e'_{o,F}(\Omega) = \int & \big[\hat{e}_{o,F}(\tilde{\Omega})\big(1 - R^E_{o,F}(\tilde{\Omega})\big)(1-\delta)g^E_\Omega(\tilde{\Omega}) \\ & + \hat{u}_{o,F}(\tilde{\Omega})\big(1 - R^U_{o,F}(\tilde{\Omega})\big)p_{o,F}(\tilde{\Omega})g^U_\Omega(\tilde{\Omega})\big]\, d\tilde{\Omega} \\ & + \sum_{\tilde{o}\neq o} \int \big[\hat{u}_{\tilde{o},F}(\tilde{\Omega})R^U_{\tilde{o},F}(\tilde{\Omega}) + \hat{e}_{\tilde{o},F}(\tilde{\Omega})R^E_{\tilde{o},F}(\tilde{\Omega})\big] \\ & \times \mathbb{1}\big\{j^*_F(\tilde{\Omega}) = o\big\}p_{o,F}(\tilde{\Omega})g^U_\Omega(\tilde{\Omega})\, d\tilde{\Omega}. \end{aligned} \tag{S5}$$

The stock of employed comprises workers who were already employed in the previous period in the same occupation and do not lose their job nor do they find it profitable to relocate, and the mass of unemployed workers who decide not to relocate and find a vacancy, plus all workers who relocate into occupation o and find a job.

The distribution of employed sons is symmetric to that of the fathers:

$$\begin{aligned} e'_{o,S}(\Omega) = \int & \big[(1-\zeta)e_{o,S}(\tilde{\Omega})\big(1 - R^E_{o,S}(\tilde{\Omega})\big)(1-\delta)g^E_\Omega(\tilde{\Omega}) \\ & + (1-\zeta)u_{o,S}(\tilde{\Omega})\big(1 - R^U_{o,S}(\tilde{\Omega})\big)p_{o,S}(\tilde{\Omega})g^U_\Omega(\tilde{\Omega})\big]\, d\tilde{\Omega} \\ & + \sum_{\tilde{o}\neq o} \int \big[(1-\zeta)u_{\tilde{o},S}(\tilde{\Omega})R^U_{\tilde{o},S}(\tilde{\Omega}) + (1-\zeta)e_{\tilde{o},S}(\tilde{\Omega})R^E_{\tilde{o},S}(\tilde{\Omega})\big] \\ & \times \mathbb{1}\big\{j^*_S(\tilde{\Omega}) = o\big\}p_{o,S}(\tilde{\Omega})g^U_\Omega(\tilde{\Omega})\, d\tilde{\Omega}. \end{aligned} \tag{S6}$$

Finally, the distribution of unemployed sons is as follows:

$$
\begin{aligned}
u'_{o,S}(\Omega) = \int \big[&(1-\zeta)u_{o,S}(\tilde{\Omega})\big(1-R^U_{o,S}(\tilde{\Omega})\big)\big(1-p_{o,S}(\tilde{\Omega})\big)g^U_{\Omega}(\tilde{\Omega}) \\
&+(1-\zeta)e_{o,S}(\tilde{\Omega})\big(1-R^E_{o,S}(\tilde{\Omega})\big)\delta g^E_{\Omega}(\tilde{\Omega})\big]\,d\tilde{\Omega} \\
&+\sum_{\tilde{o}\neq o}\int\big[(1-\zeta)u_{\tilde{o},S}(\tilde{\Omega})R^U_{\tilde{o},S}(\tilde{\Omega})+(1-\zeta)e_{\tilde{o},S}(\tilde{\Omega})R^E_{\tilde{o},S}(\tilde{\Omega})\big] \\
&\times \mathbb{1}\big\{j^*_S(\tilde{\Omega})=o\big\}\big(1-p_{o,S}(\tilde{\Omega})\big)g^U_{\Omega}(\tilde{\Omega})\,d\tilde{\Omega} \\
&+\zeta\frac{\mathbb{1}\big\{\Omega\in\Omega^{\mathrm{NB}}\big\}}{\int_{\Omega}\mathbb{1}\big\{\Omega\in\Omega^{\mathrm{NB}}\big\}},
\end{aligned}
\tag{S7}
$$

with the only difference being the last term, which represents the flow of newborns directed to the subset Ω^{NB} of the entire state space.

Appendix SH: Additional quantitative results

SH.1 *Other policy functions*

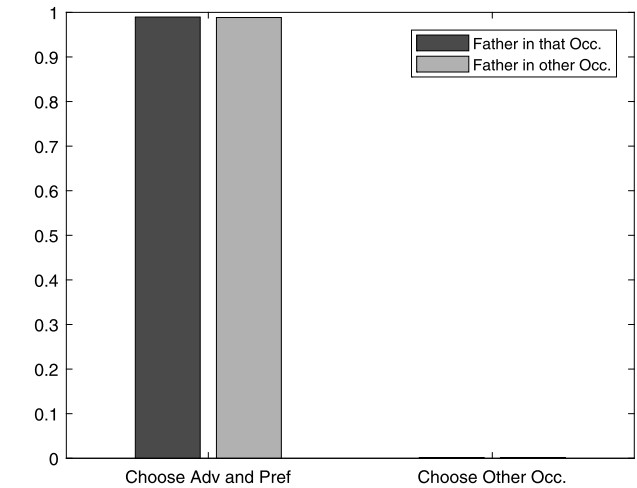

Figure S6. Probability of choosing occupations (average policy function). *Note*: Model solution under baseline calibration: the bars show the probability of choosing different occupations (the policy function, averaged across model states), depending on whether the father is working in that occupation, for unemployed workers with comparative advantage, and preference in the same occupation.

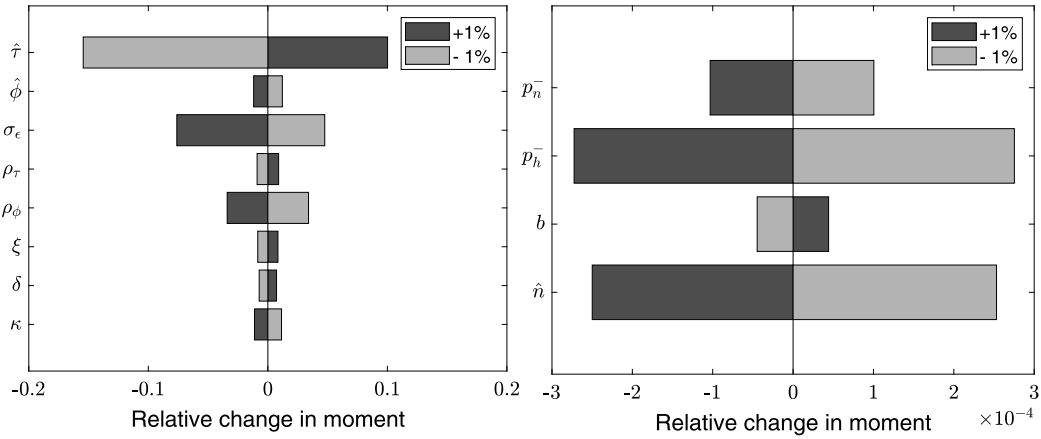

FIGURE S7. Model identification. *Note*: In each panel, we plot the relative change in the associated identifying moment, defined as the ratio between the change in the moment and its baseline level, when a parameter is increased or decreased by 1% starting from the baseline calibration. Parameters are divided into two panels for readability, as the change in the parameters on the right induces relatively small changes in the associated moment conditions around the baseline calibration. *Source*: Author's calculations.

SH.2 *Identification*

Figure S7 shows how each of the moments associated to each parameter respond to a change in that parameter. We find that each moment responds in the expected direction to changes in parametrizations, and that each moment is informative of its associated parameter. We have also verified that the Jacobian of the system of equations has full rank, which is a necessary condition for the moment restrictions to be used to identify all the underlying parameters.

TABLE S17. Regressions of occupational persistence (being in the same occupation as the father).

	(1)	(2)
Father's log wage above average	0.0231	
	(0.012)	
Father's log wage above occ.-specific average		0.0267
		(0.011)
Average in-sample persistence rate	0.165	0.165
Controls:		
All controls	✓	✓
N	4953	4953
R^2	0.135	0.136

Note: All models are pooled OLS regressions. All models include a third-degree polynomial in age, dummies for education, region of residence, smoking behavior, marital status, ethnicity, father's age, father's occupation, quarter, and occupation of search/employment. The occupation is defined at the 1-digit level. *Source*: BHPS (1991–2008). Standard errors in parentheses.

Table S17 shows the regression that we use to identify the persistence of comparative advantage. We run the same regression in the model and we calibrate ρ_τ to match the coefficient for the variable "father's log wage above average."

Co-editor Kjetil Storesletten handled this manuscript.

Manuscript received 22 June, 2019; final version accepted 2 September, 2021; available online 2 December, 2021.