

LBS Research Online

O Kacperczyk and C Balachandran

Vertical and Horizontal Wage Dispersion and Mobility Outcomes: Evidence from the Swedish Microdata
Article

This version is available in the LBS Research Online repository: <https://lbsresearch.london.edu/id/eprint/854/>

Kacperczyk, O and Balachandran, C

(2018)

Vertical and Horizontal Wage Dispersion and Mobility Outcomes: Evidence from the Swedish Microdata.

Organization Science, 29 (1). pp. 17-38. ISSN 1047-7039

DOI: <https://doi.org/10.1287/orsc.2017.1169>

INFORMS (Institute for Operations Research and Management Sciences)

<https://pubsonline.informs.org/doi/abs/10.1287/ors...>

Users may download and/or print one copy of any article(s) in LBS Research Online for purposes of research and/or private study. Further distribution of the material, or use for any commercial gain, is not permitted.

On-Line Appendix: Table A1: Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Mobility	1.00											
2. Top Earner (horizontal)	-0.01	1.00										
3. Bottom Earner (horizontal)	0.06	-0.12	1.00									
4. Top Earner (vertical)	-0.00	0.50	-0.11	1.00								
5. Bottom Earner (vertical)	0.06	-0.12	0.83	-0.11	1.00							
6. Wage	-0.04	0.33	-0.28	0.45	-0.30	1.00						
7. Wage squared	-0.00	0.06	-0.02	0.09	-0.02	0.53	1.00					
8. Female	0.00	-0.11	0.13	-0.11	0.13	-0.21	-0.02	1.00				
9. Swedish Background	-0.00	0.01	-0.01	0.03	-0.02	0.06	0.01	-0.03	1.00			
10. Age	-0.16	0.11	-0.11	0.14	-0.12	0.20	0.03	-0.04	0.01	1.00		
11. Age Squared	-0.15	0.10	-0.10	0.13	-0.11	0.18	0.02	-0.04	0.02	0.99	1.00	
12. Tenure	-0.19	0.05	-0.07	0.04	-0.08	0.08	0.00	-0.06	0.07	0.47	0.46	1.00
13. Tenure Squared	-0.16	0.04	-0.06	0.03	-0.07	0.07	0.00	-0.06	0.07	0.44	0.43	0.96
15. Education <=11	-0.08	0.00	-0.04	-0.09	-0.03	-0.14	-0.03	-0.07	-0.01	0.32	0.30	0.26
16. Education =12	0.05	-0.04	0.02	-0.05	0.03	-0.09	-0.01	0.03	0.02	-0.30	-0.27	-0.15
17. Education >12,<=15	0.04	0.03	0.03	0.14	0.00	0.23	0.04	0.05	0.00	-0.06	-0.07	-0.14
18. Education >15	-0.01	0.03	-0.01	0.07	-0.02	0.10	0.02	-0.02	-0.02	0.02	0.02	-0.02
19. Hierarchy level 1	-0.01	0.01	0.01	0.37	-0.06	0.32	0.07	-0.05	0.04	0.10	0.09	0.04
20. Hierarchy level 2	0.01	-0.00	-0.00	0.08	-0.05	0.23	0.03	0.01	0.03	0.02	0.01	-0.07
21. Hierarchy level 3	-0.01	0.00	0.00	0.02	-0.04	0.10	0.01	0.02	0.06	0.07	0.06	0.02
22. Hierarchy level 4	0.00	-0.00	-0.00	-0.23	0.09	-0.38	-0.05	-0.00	-0.09	-0.11	-0.09	0.02
23. Nr. of Hierarchies	-0.06	-0.03	-0.03	0.02	-0.03	0.12	0.02	0.04	-0.00	0.08	0.07	0.10
24. Operating Profit	-0.03	-0.00	-0.00	0.00	-0.00	0.07	0.01	0.01	-0.01	0.01	0.01	0.03
25. Operating Profit Growth	0.00	-0.00	0.00	-0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	-0.00
26. Firm Age	-0.03	-0.00	-0.00	0.00	-0.00	0.04	0.00	-0.03	0.01	0.03	0.03	0.12
27. Nr. of Establishments	-0.03	-0.01	-0.01	0.01	-0.01	-0.04	-0.00	0.14	0.02	0.07	0.08	0.06
28. No of Employees	-0.06	-0.02	-0.02	0.01	-0.01	-0.00	0.00	0.04	-0.02	0.07	0.07	0.08
29. Horiz. Wage Dispersion	0.09	-0.01	-0.01	0.08	-0.00	0.06	0.05	0.28	-0.06	-0.11	-0.10	-0.16
30. Vertical Wage Dispersion	-0.01	-0.00	0.00	-0.01	-0.01	0.15	0.04	0.16	0.01	0.00	-0.00	0.00

	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
13. Tenure Squared	1.00																
14. Education <=11	0.24	1.00															
15. Education =12	-0.14	-0.54	1.00														
16. Education >12,<=15	-0.13	-0.57	-0.37	1.00													
17. Education >15	-0.02	-0.07	-0.05	-0.05	1.00												
18. Hierarchy level 1	0.03	-0.09	-0.03	0.12	0.03	1.00											
19. Hierarchy level 2	-0.08	-0.28	-0.13	0.40	0.15	-0.08	1.00										
20. Hierarchy level 3	0.02	-0.15	-0.01	0.18	-0.02	-0.11	-0.19	1.00									
21. Hierarchy level 4	0.02	0.35	0.11	-0.48	-0.10	-0.29	-0.51	-0.64	1.00								
22. Nr. of Hierarchies	0.09	-0.10	-0.04	0.14	0.03	0.08	0.12	0.14	-0.24	1.00							
23. Operating Profit	0.02	-0.04	-0.02	0.05	0.09	0.01	0.06	0.03	-0.07	0.08	1.00						
24. Operating Profit Growth	-0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00	0.00	-0.00	0.00	0.01	1.00					
25. Firm Age	0.11	0.01	-0.01	0.01	0.01	0.02	0.01	0.03	-0.03	0.06	0.04	0.00	1.00				
26. Nr. of Establishments	0.05	-0.01	-0.01	0.02	-0.01	0.01	-0.01	0.03	-0.02	0.16	-0.01	-0.00	-0.04	1.00			
27. Nr of Employees	0.06	0.01	-0.03	0.02	0.02	0.01	0.01	-0.00	-0.01	0.25	0.25	0.00	-0.03	0.63	1.00		
28. Horiz. Wage Dispersion	-0.15	-0.19	0.04	0.16	0.03	0.14	0.10	0.03	-0.15	0.11	0.02	0.00	-0.03	0.16	0.12	1.00	
29. Vertical Wage Dispersion	-0.00	-0.16	-0.01	0.18	0.04	0.10	0.12	0.18	-0.27	0.33	0.11	0.00	0.05	0.10	0.06	0.24	1.00

On-Line Appendix: Table A2. Descriptive statistics on employee characteristics across job categories

Variables	Mean wage	p10	p25	p50	p75	p90	Min	Max	SD
<u>Level 1 (Managers)</u>									
Wage	484.96	190.96	288	396.98	564.9	808.24	0	29495.04	455.46
Gender (Female=1, Male=2)	1.22	1	1	1	1	2	1	2	.41
Age	45.11	33	38	45	53	57	20	60	8.86
Tenure	8.1	1	3	6	13	17	1	23	6.06
Education <=11 years	.34	0	0	0	1	1	0	1	.47
Education =12 years	.20	0	0	0	0	1	0	1	.40
Education >12,<=15 years	.44	0	0	0	1	1	0	1	.5
Education >15 years	.01	0	0	0	0	0	0	1	.11
N = 342,451									
<u>Level 2 (Professionals)</u>									
Wage	384.42	156.32	267.7	357.59	467.29	600	0	56376.91	254.86
Gender (Female=1, Male=2)	1.37	1	1	1	2	2	1	2	.48
Age	40.82	29	33	40	49	55	20	60	9.76
Tenure	5.82	1	2	4	8	14	1	23	5
Education <=11 years	.1	0	0	0	0	0	0	1	.3
Education =12 years	.13	0	0	0	0	1	0	1	.33
Education >12,<=15 years	.74	0	0	1	1	1	0	1	.44
Education >15 years	.03	0	0	0	0	0	0	1	.18
N= 895,601									
<u>Level 3 (Associate Professionals)</u>									
Wage	316.35	145.09	232.27	300.35	377.72	475.9	0	23698.16	184.57
Gender (Female=1, Male=2)	1.38	1	1	1	2	2	1	2	.49
Age	41.33	28	33	40	50	56	20	60	10.27
Tenure	6.98	1	2	5	10	17	1	23	5.81
Education <=11 years	.31	0	0	0	1	1	0	1	.46
Education =12 years	.26	0	0	0	1	1	0	1	.44
Education >12,<=15 years	.43	0	0	0	1	1	0	1	.5
Education >15 years	.003	0	0	0	0	0	0	1	.05
N = 1,312,510									
<u>Level 4 (Production workers)</u>									
Wage	218.73	87.69	158.14	226.18	277.90	327.01	0	194903.3	111.13
Gender (Female=1, Male=2)	1.36	1	1	1	2	2	1	2	.48
Age	38.98	23	29	38	49	56	20	60	11.5
Tenure	6.86	1	2	5	10	17	1	23	5.87
Education <=11 years	.59	0	0	1	1	1	0	1	.49
Education =12 years	.29	0	0	0	1	1	0	1	.46

Education >12,<=15 years	.12	0	0	0	0	1	0	1	.32
Education >15 years	.0004	0	0	0	0	0	0	1	.02

N = 4,507,257

Overall

Wage	276.3	101.88	183.71	254.52	329.27	439.88	0	194903.3	209.32
Gender (Female=1, Male=2)	1.35	1	1	1	2	2	1	2	.48
Age	40.08	25	31	40	49	56	20	60	11.04
Tenure	6.84	1	2	5	10	16	1	23	5.8
Education <=11 years	.46	0	0	0	1	1	0	1	.5
Education =12 years	.26	0	0	0	1	1	0	1	.44
Education >12,<=15 years	.28	0	0	0	1	1	0	1	.45
Education >15 years	.01	0	0	0	0	0	0	1	.08

N = 7,057,819

On-Line Appendix: Table A3. OLS Regressions of Vertical and Horizontal Dispersion: Interactions with Pay Positions

Variables	(1)	(2)	(3)	(4)
Horizontal Wage Dispersion	—	0.104*** (0.00379)	0.110*** (0.00380)	0.233*** (0.00401)
Vertical Wage Dispersion	-0.0421*** (0.00715)	—	-0.0574*** (0.00716)	-0.0463*** (0.00486)
Top earner (horiz.)	0.00829*** (0.000679)	—	-0.00157* (0.000756)	0.000664 (0.00102)
Bottom earner (horiz.)	0.0461*** (0.000816)	—	0.0237*** (0.00105)	0.0155*** (0.00133)
Top earner (vertical)	—	0.0265*** (0.00118)	0.0268*** (0.00124)	0.0183*** (0.00170)
Bottom earner (vertical)	—	0.0113*** (0.00126)	-0.00427** (0.00142)	0.00208 (0.00182)
Horizontal Wage Dispersion * Top earner (vert.)	—	-0.0680*** (0.00594)	-0.0709*** (0.00600)	-0.0379*** (0.00820)
Horiz. Wage Dispersion * Bottom earner (vert.)	—	0.174*** (0.00689)	0.190*** (0.00701)	0.0701*** (0.00915)
Vert. Wage Dispersion * Top earner (horiz.)	0.00434 (0.00630)	—	0.0515*** (0.00652)	0.0665*** (0.00884)
Vert. Wage Dispersion * Bottom earner (horiz.)	-0.102*** (0.00737)	—	-0.0921*** (0.00759)	-0.0540*** (0.00984)
Clustered Standard Errors	Firm	Firm	Firm	Firm and Ind.
Controls in Table 3	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Hierarchy dummies	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Municipality fixed effect	Yes	Yes	Yes	Yes
Individual fixed effect	No	No	No	Yes
Observations	7,057,819	7,057,819	7,057,819	7,057,819
R ²	0.313	0.314	0.314	0.547

Standard errors in parentheses. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Online Appendix: Table A4. OLS Regressions of Vertical and Horizontal Wage Dispersion: Social Proximity (Gender and Ethnicity)

Variables	(1)	(2)	(3)	(4)
Horizontal wage inequality × % of similar gender (horizontal)	-0.0271** (0.00946)	—	—	—
Vertical wage inequality × % of similar gender (vertical)	—	-0.0651*** (0.00848)	—	—
Horizontal wage inequality × % of similar ethnicity (horizontal)	—	—	0.0306*** (0.00863)	—
Vertical wage inequality × % of similar ethnicity (vertical)	—	—	—	-0.0217* (0.00966)
Horizontal wage inequality	0.135*** (0.00688)	0.120*** (0.00356)	0.0969*** (0.00746)	0.120*** (0.00356)
Vertical wage inequality	-0.0661*** (0.00707)	-0.0205* (0.00947)	-0.0673*** (0.00707)	-0.0513*** (0.0101)
% of similar gender (horizontal)	-0.00680*** (0.00182)	—	—	—
% of similar gender (vertical)	—	0.00128 (0.000907)	—	—
% of similar Ethnicity (horizontal)	—	—	-0.0330*** (0.00192)	—
% of similar Ethnicity (vertical)	—	—	—	-0.0254*** (0.00149)
Clustered Standard Errors	Firm	Firm	Firm	Firm
Controls in Table 3	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Hierarchy Dummies	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Municipality fixed effect	Yes	Yes	Yes	Yes
Observations	7,057,819	7,057,819	7,057,819	7,057,819
R ²	0.313	0.313	0.313	0.313

Standard errors in parentheses. * $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Appendix Table A5 OLS Regressions of Cross-Firm Mobility: Social Proximity—Gender

Variables	(1)	(2)	(3)	(4)
Horizontal wage inequality	0.0963*** (0.0108)	0.144*** (0.00507)	0.228*** (0.0125)	0.128*** (0.00416)
Vertical wage inequality	-0.0291** (0.00948)	-0.0472** (0.0150)	-0.117*** (0.00798)	-0.210*** (0.0164)
Horizontal wage inequality × % of similar gender (horizontal)	0.0925*** (0.0192)	—	-0.142*** (0.0176)	—
Vertical wage inequality × % of similar gender (vertical)	—	0.0413 (0.0221)	—	-0.113*** (0.0173)
% of similar gender (horizontal)	-0.00162 (0.00410)	—	0.0322*** (0.00357)	—
% of similar gender (vertical)	—	0.000852 (0.00240)	—	-0.00437* (0.00173)
Clustered Standard Errors	Firm	Firm	Firm	Firm
Controls in Table 3	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Hierarchy Dummies	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Municipality fixed effects	Yes	Yes	Yes	Yes
Observations	3,103,664	3,103,664	5,626,697	5,626,697
R ²	0.334	0.334	0.322	0.322

Notes. Standard errors in parentheses. All models include controls as reported in Table 3 * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Appendix: Table A6 OLS Regressions of Cross-Firm Mobility Robustness Checks: Unemployment Gaps

Variables	(1)	(2)	(3)	(4)	(5)
Horizontal Wage Dispersion	0.105*** (0.00359)	0.221*** (0.00377)	0.0989*** (0.00373)	—	0.0922*** (0.00374)
Vertical Wage Dispersion	-0.0732*** (0.00719)	-0.0526*** (0.00471)	—	-0.0506*** (0.00724)	-0.0629*** (0.00725)
Horizontal wage dispersion × Top earner (horizontal)	—	—	-0.0461*** (0.00566)	—	-0.0536*** (0.00566)
Horizontal wage dispersion × Bottom earner (horizontal)	—	—	0.105*** (0.00680)	—	0.119*** (0.00691)
Vertical wage dispersion × Top earner (vertical)	—	—	—	0.0124+ (0.00727)	0.0241** (0.00743)
Vertical wage dispersion × Bottom earner (vertical)	—	—	—	-0.0454*** (0.00793)	-0.0566*** (0.00812)
Top earner (horizontal)	—	—	0.0165*** (0.00104)	—	0.0138*** (0.00106)
Bottom earner (horizontal)	—	—	0.0161*** (0.00124)	—	-0.00848*** (0.00138)
Top earner (vertical)	—	—	—	0.0130*** (0.000736)	0.0100*** (0.000808)
Bottom earner (vertical)	—	—	—	0.0420*** (0.000863)	0.0336*** (0.00108)
Clustered Standard Errors	Firm	Individual	Firm	Firm	Firm
Controls in Table 3	Yes	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	No	Yes	Yes	Yes
Individual fixed effect	No	Yes	No	No	No
Industry fixed effect	Yes	Yes	Yes	Yes	Yes
Hierarchy Dummies	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Municipality fixed effect	Yes	Yes	Yes	Yes	Yes
Observations	6,638,237	6,638,237	6,638,237	6,638,237	6,638,237
R ²	0.320	0.533	0.321	0.321	0.321

Standard errors in parentheses. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Excluding workers with unemployment gaps reduces the original sample size in Table 3 by 6 percent.

Online Appendix: Table A7. OLS Regressions of Cross-Firm Mobility Robust to Unemployment Gaps: Social Proximity

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Horizontal wage dispersion × Age similarity (horizontal)	0.00165***	—	—	—	—	—	—	—
	(0.000309)	—	—	—	—	—	—	—
Vertical wage dispersion × Age similarity (vertical)	—	-0.00148***	—	—	—	—	—	—
	—	(0.000351)	—	—	—	—	—	—
Horizontal wage dispersion × Tenure similarity (horizontal)	—	—	0.00368***	—	—	—	—	—
	—	—	(0.000537)	—	—	—	—	—
Vertical wage dispersion × Tenure similarity (vertical)	—	—	—	-0.00393***	—	—	—	—
	—	—	—	(0.000614)	—	—	—	—
Horizontal wage dispersion × % of similar gender (horizontal)	—	—	—	—	-0.128***	—	—	—
	—	—	—	—	(0.0181)	—	—	—
Vertical wage dispersion × % of similar gender (vertical)	—	—	—	—	—	-0.146***	—	—
	—	—	—	—	—	(0.0144)	—	—
Horizontal wage dispersion × % of similar Ethnicity (horizontal)	—	—	—	—	—	—	0.0382***	—
	—	—	—	—	—	—	(0.00838)	—
Vertical wage dispersion × % of similar Ethnicity (vertical)	—	—	—	—	—	—	—	-0.0246***
	—	—	—	—	—	—	—	(0.00114)
Horizontal wage dispersion	0.123***	0.111***	0.123***	0.111***	-0.0547*	0.0901***	0.0818***	0.112***
	(0.00404)	(0.00340)	(0.00386)	(0.00340)	(0.0220)	(0.00434)	(0.00724)	(0.00340)
Vertical wage dispersion	-0.0201**	-0.0308***	-0.0200**	-0.0319***	-0.0700***	0.117***	-0.0209**	0.0469***
	(0.00651)	(0.00698)	(0.00651)	(0.00677)	(0.00831)	(0.0204)	(0.00651)	(0.00842)
Clustered Standard Errors	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm
Controls in Table 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hierarchy Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,638,237	6,638,237	6,638,237	6,638,237	5,270,063	5,270,063	6,638,237	6,638,237
R ²	0.159	0.159	0.159	0.159	0.166	0.166	0.159	0.159

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Excluding workers with unemployment gaps reduces the original sample size in Table 3 by 6 percent.

Online Appendix: Table A8. Robustness: Multinomial Logit Regressions

Variables	Cross-Firm Mobility	Unemployment
	(1)	(2)
Horizontal Wage Dispersion	11.92*** (71.46)	0.981 (1.50)
Vertical Wage Dispersion	-0.519*** (17.37)	1.238 (1.43)
Horizontal wage dispersion × Top earner (horizontal)	-0.761*** (3.49)	-0.445*** (3.37)
Horizontal wage dispersion × Bottom earner (horizontal)	-0.806** (2.59)	-0.0502*** (21.19)
Vertical wage dispersion × Top earner (vertical)	1.576*** (4.35)	1178.5*** (19.97)
Vertical wage dispersion × Bottom earner (vertical)	-0.916 (0.88)	-0.259*** (8.37)
Top earner (horizontal)	1.175*** (10.21)	1.094 (1.73)
Bottom earner (horizontal)	1.178*** (9.18)	2.074*** (22.19)
Top earner (vertical)	1.126*** (10.17)	-0.952 (1.19)
Bottom earner (vertical)	1.283*** (18.23)	1.632*** (19.81)
Age	-0.992*** (6.06)	-0.941*** (21.21)
Age Squared	-1.000*** (10.47)	1.000*** (11.39)
Tenure	-0.841*** (149.12)	-0.857*** (50.48)
Tenure Squared	1.005*** (78.64)	1.004*** (25.58)
Education =12	-0.988** (2.84)	-0.985 (1.52)
Education >12,<=15	1.070*** (13.96)	1.206*** (16.88)
Education >15	-0.958 (1.87)	1.886*** (9.86)
Female	-0.813*** (53.61)	-0.778*** (29.26)
Swedish	1.109*** (21.71)	-0.847*** (16.86)
Wage	-0.999*** (27.85)	-0.993*** (104.07)
Wage squared	1.000*** (8.73)	1.000*** (59.64)
Operating Profit	-1.000*** (19.89)	-1.000*** (8.84)
Annual Operating Profit Growth	-1.000 (0.19)	1.000 (0.14)
Firm Age	-0.996*** (15.41)	-0.990*** (15.49)
Nr. of Establishments	1.000*** (7.84)	-1.000** (3.28)
Employer's Nr. of Employees	-1.000*** (70.49)	-1.000*** (26.51)
Clustered Standard Errors	Firm	Firm
Firm fixed effect	Yes	Yes
Industry fixed effect	Yes	Yes
Hierarchy Dummies	Yes	yes
Year fixed effects	Yes	Yes
Municipality fixed effects	Yes	Yes
Log Likelihood	-1665843.4	-1665843.4
Chi-Squared	399586.1	399586.1
Observations	4,196,350	4,196,350

Exponentiated coefficients; *t* statistics in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Online Appendix: Table A9. OLS Regressions of Cross-Firm Mobility: Robustness Checks

	Multiple Establishment Excluded	Logit	Alternative Measures	Alternative Measures	Alternative Measures	Alternative Measures
Variables	(1)	(2)	(3)	(4)	(5)	(6)
Horizontal wage dispersion	0.165*** (0.00487)	2.477*** (0.0245)	0.145*** (0.00365)			
Vertical wage dispersion	-0.1000*** (0.00874)	-0.660*** (0.0267)				
Vertical wage dispersion (diff)			-0.000009** (0.0000010)			
Horizontal wage distance				0.000149*** (0.0000023)		
Vertical wage distance				-0.000007*** (0.000001)		
Theil index (within)					0.0359*** (0.00711)	
Theil index (between)					-0.0130*** (0.00329)	
Horizontal dispersion (collapsed)						0.107*** (0.00377)
Vertical dispersion (collapsed)						-0.0687*** (0.00708)
Clustered Standard Errors	Firm	Firm	Firm	Firm	Firm	Firm
Controls in Table 3	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Hierarchy Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Municipality fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,288,142	7,057,819	7,057,819	7,057,819	7,057,819	7,057,819
R ²	0.340	0.088	0.320	0.319	0.318	0.313

Standard errors in parentheses. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

On-Line Appendix: Figure A1. Social Similarity Interaction: Vertical Wage Dispersion * Age Similarity



Figure A2. Social Similarity Interaction: Horizontal Wage Dispersion * Age Similarity

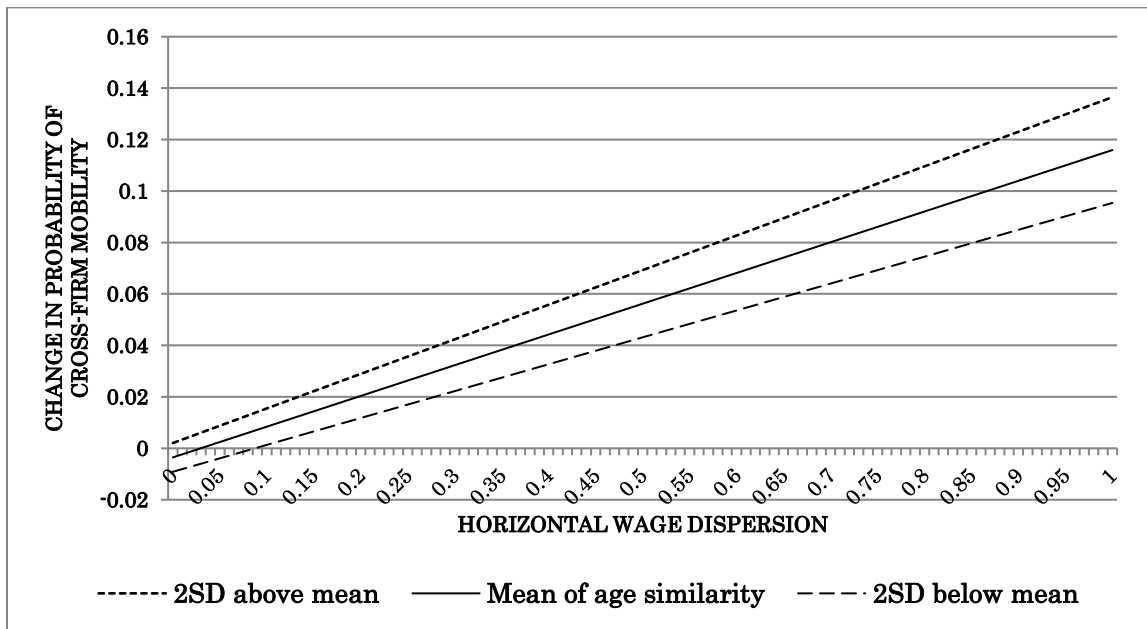


Figure A3. Social Similarity Interaction: Vertical Wage Dispersion * Tenure Similarity

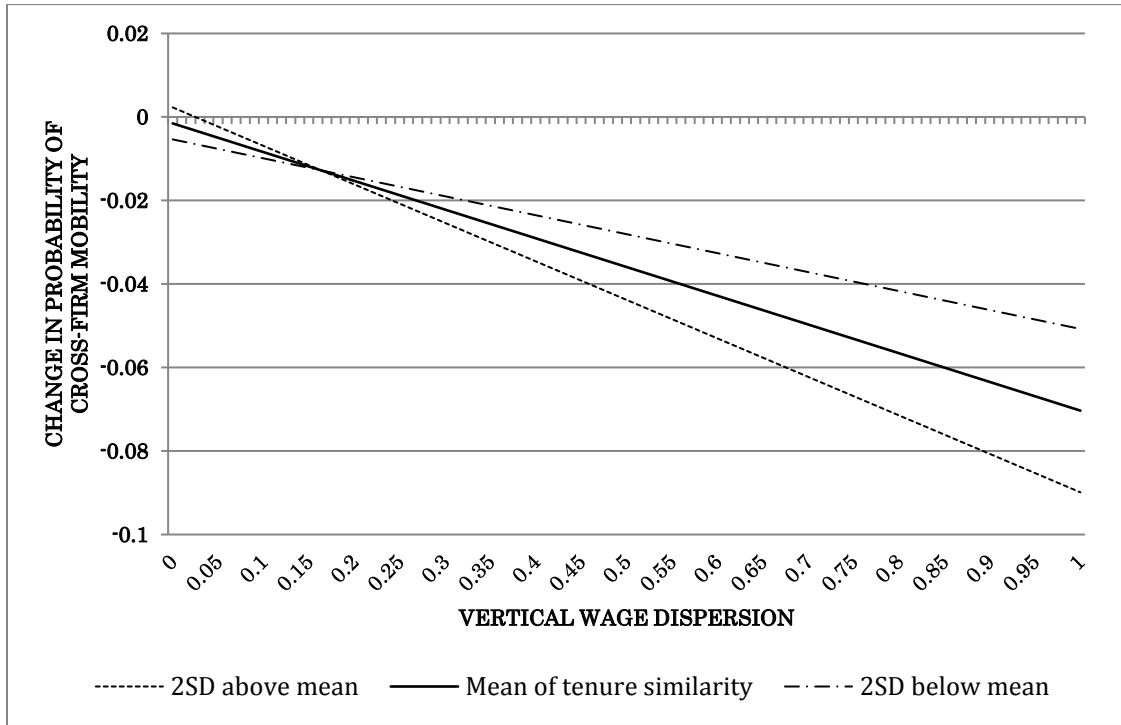


Figure A4. Social Similarity Interaction: Horizontal Wage Dispersion * Tenure Similarity

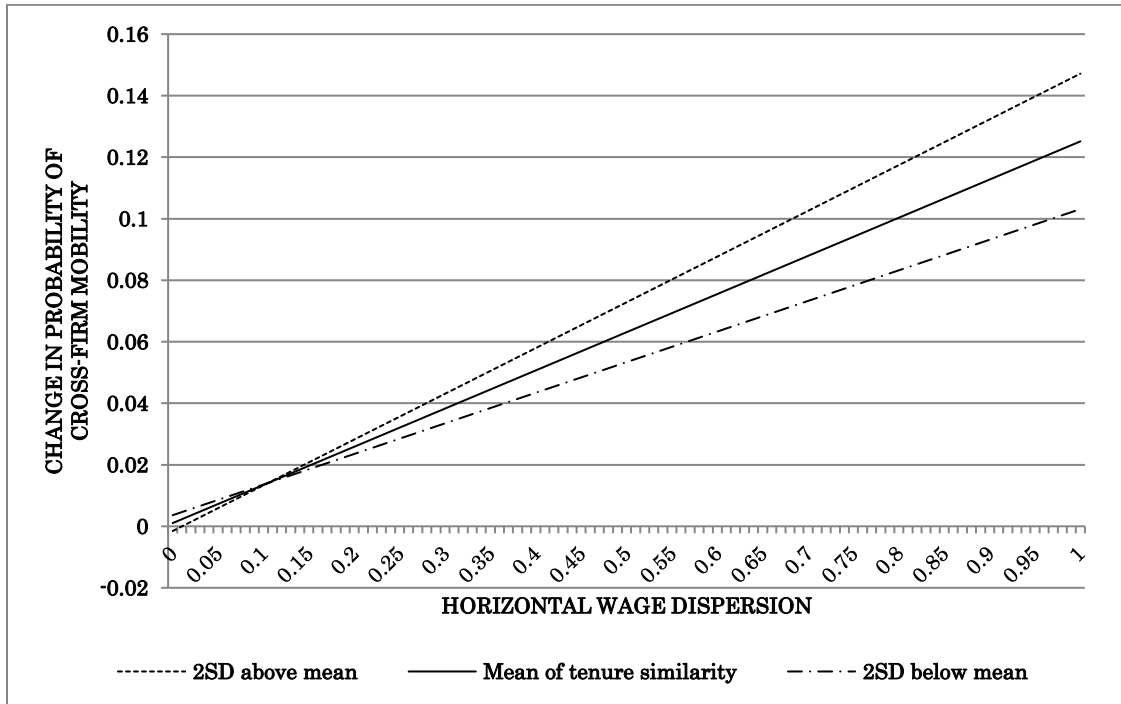


Figure A5. Social Similarity Interaction: Vertical Wage Dispersion * Gender Similarity

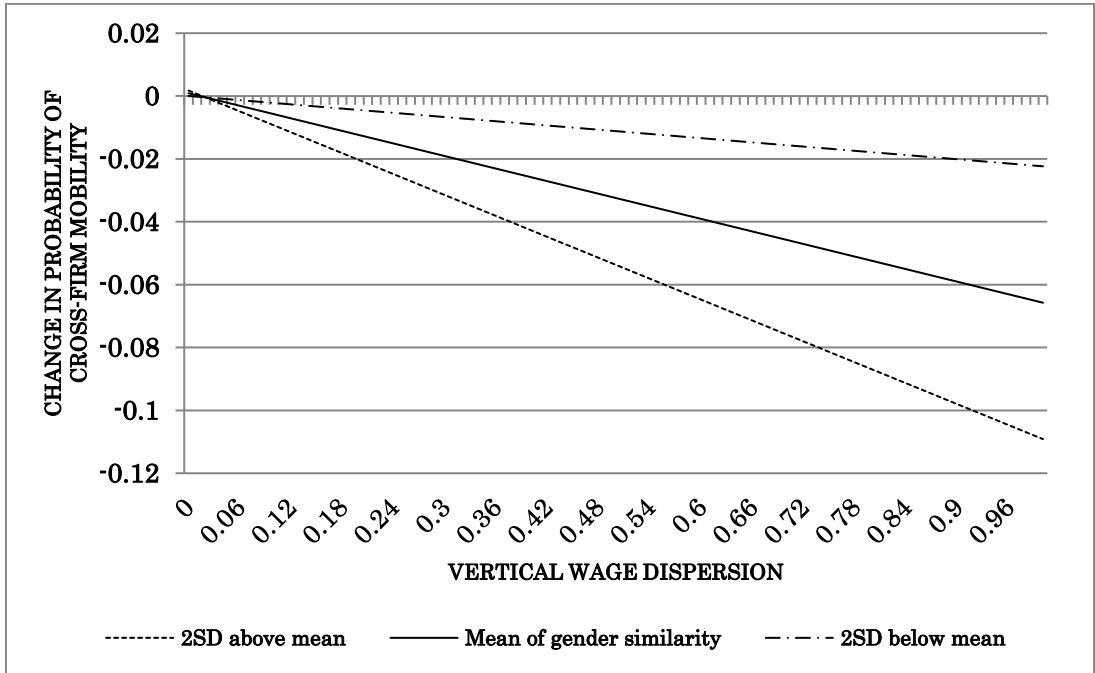


Figure A6. Social Similarity Interaction: Horizontal Wage Dispersion * Gender Similarity

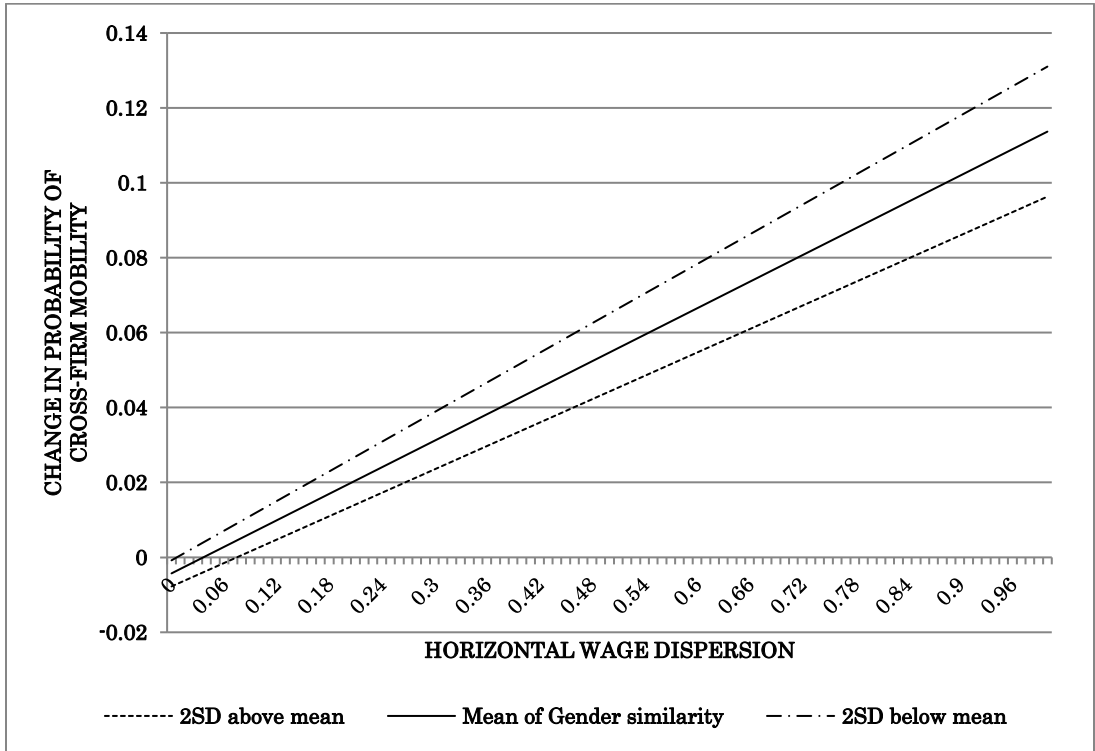


Figure A7. Social Similarity Interaction: Vertical Wage Dispersion * Ethnic Similarity

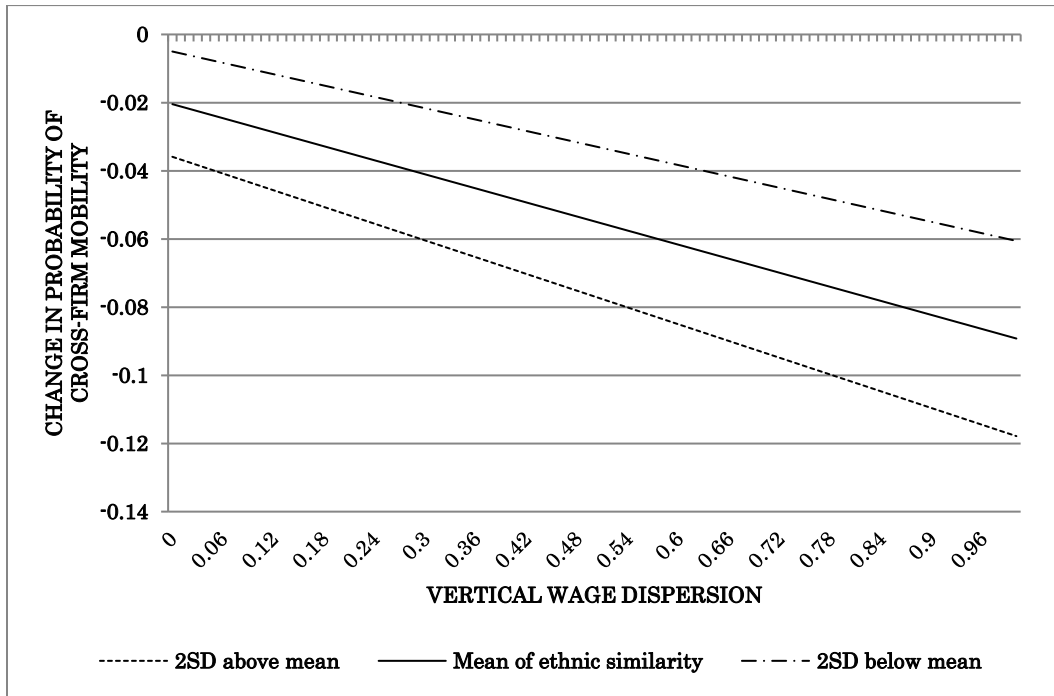


Figure A8. Social Similarity Interaction: Horizontal Wage Dispersion * Ethnic Similarity

