

# Job Mobility Within and Across Occupations

[ONLINE APPENDIX]

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November 2020

This appendix contains additional results for “Job Mobility Within and Across Occupations.” The baseline model in the main text body features occupation-specific wage offers, labor market frictions in the form of offer arrival and job separation rates, non-wage amenities, and non-pecuniary job switching costs. I estimate several auxiliary versions of this baseline model. First, I shut down occupational heterogeneity in all of these mechanisms. Second, I add only one of them at the time. The results in this appendix correspond to these auxiliary models, both with and without unobserved heterogeneity. The article discusses the main lessons from these analyses: (1) labor market frictions are the key determinant of the ex ante wage paths for workers who start their careers in high- vs. low-skill occupations; and (2) all mechanisms are instrumental in fully accounting for life cycle wage dynamics.

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# 1 Auxiliary model estimates, no unobserved heterogeneity

## 1.1 No occupational heterogeneity

Figure 1.1: Hazard rates

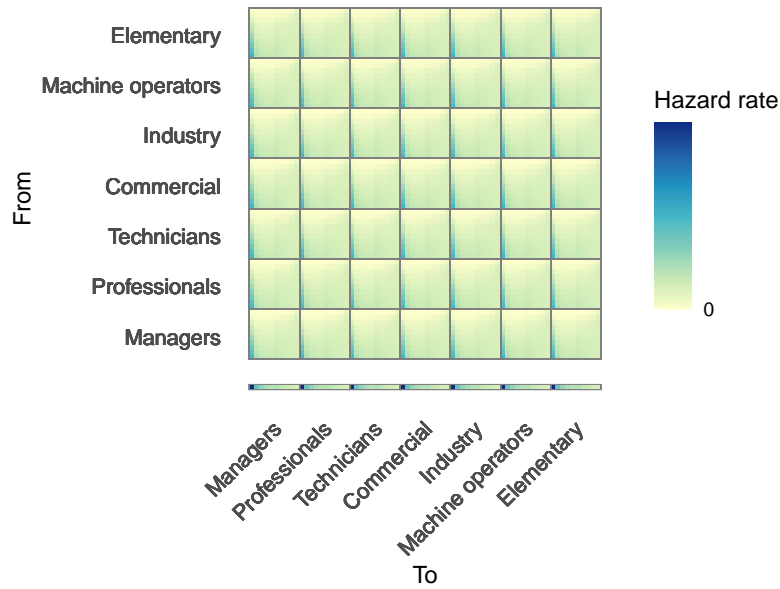
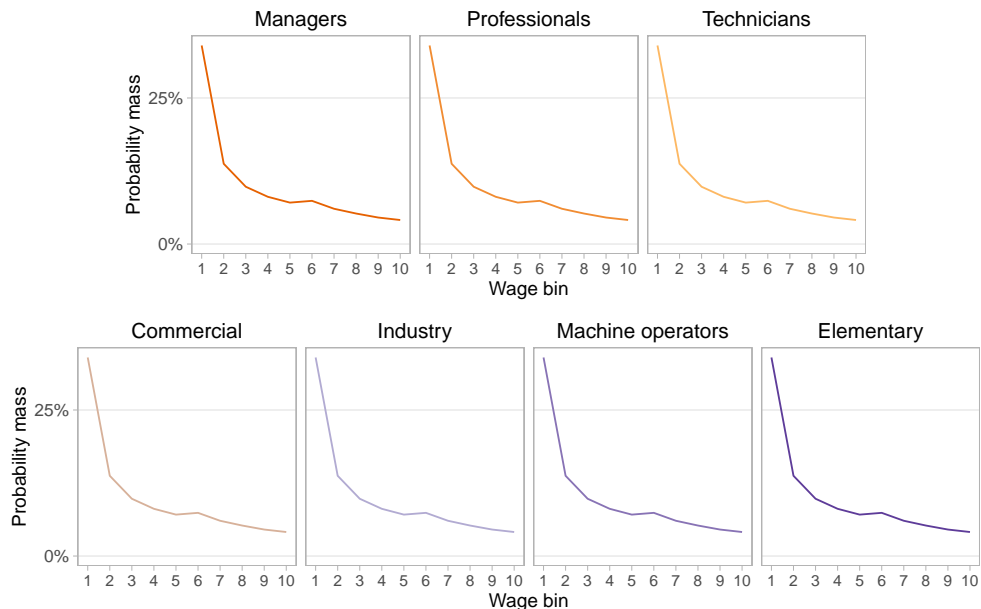


Table 1.1: Job separation rates

Occupation	Job separation rate
Managers	0.41
Professionals	0.41
Technicians	0.41
Commercial	0.41
Industry	0.41
Machine operators	0.41
Elementary	0.41

**Figure 1.2: Offered wages**



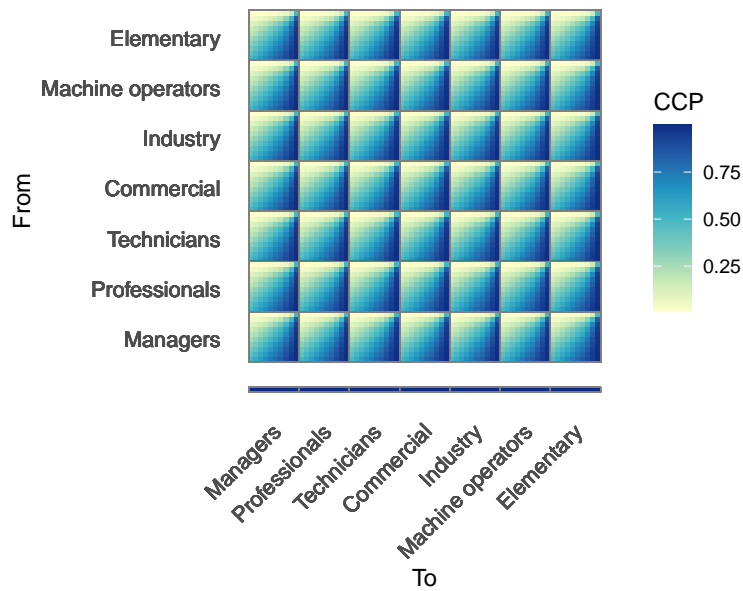
**Figure 1.3: Offer arrival rates**

	Elementary	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.92
	Machine operators	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.92
	Industry	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.92
	Commercial	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.92
	Technicians	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.92
	Professionals	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.92
	Managers	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.92
	Out of labor force	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.93
From		Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary	Total
		To							

**Figure 1.4:** Mean switching costs

From	Elementary	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Machine operators	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Technicians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Professionals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Managers	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Out of labor force	0.24	0.24	0.24	0.24	0.24	0.24	0.24
		Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary
		To						

**Figure 1.5:** Conditional choice probabilities of accepting offers

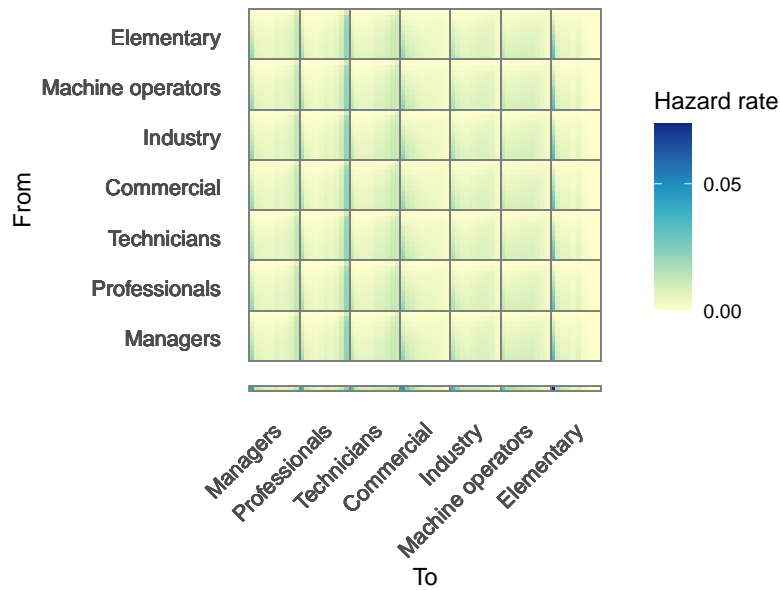


**Table 1.2:** Compensating differentials

Occupation	$\beta$	$\psi_a$	Comp. diff.
Managers	1.96	0.41	1.00
Professionals		0.41	1.00
Technicians		0.41	1.00
Commercial		0.41	1.00
Industry		0.41	1.00
Machine operators		0.41	1.00
Elementary		0.41	1.00

## 1.2 Only occupational wage offers

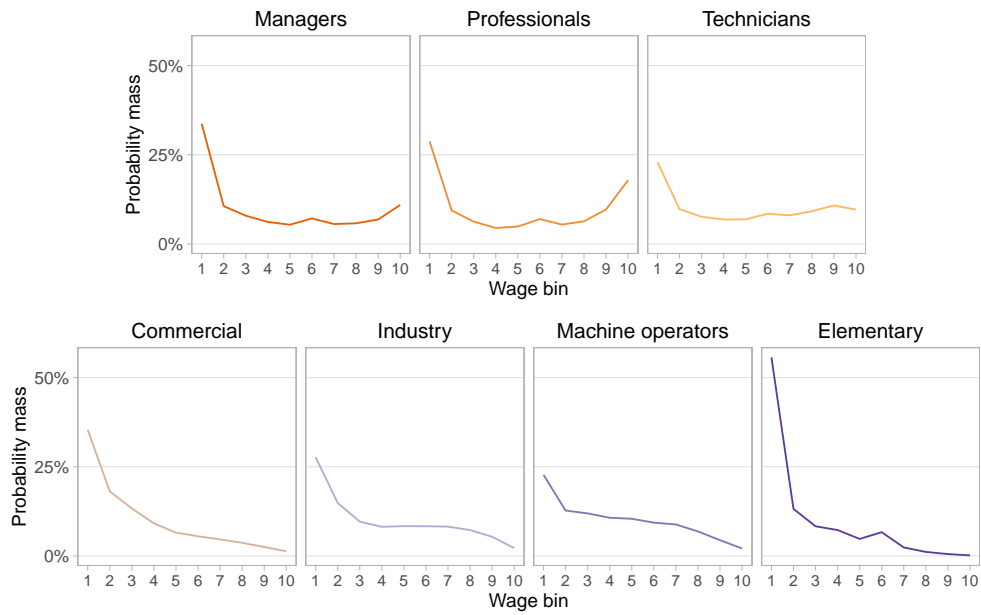
**Figure 1.6:** Hazard rates



**Table 1.3:** Job separation rates

Occupation	Job separation rate
Managers	0.41
Professionals	0.41
Technicians	0.41
Commercial	0.41
Industry	0.41
Machine operators	0.41
Elementary	0.41

**Figure 1.7:** Offered wages



**Figure 1.8: Offer arrival rates**

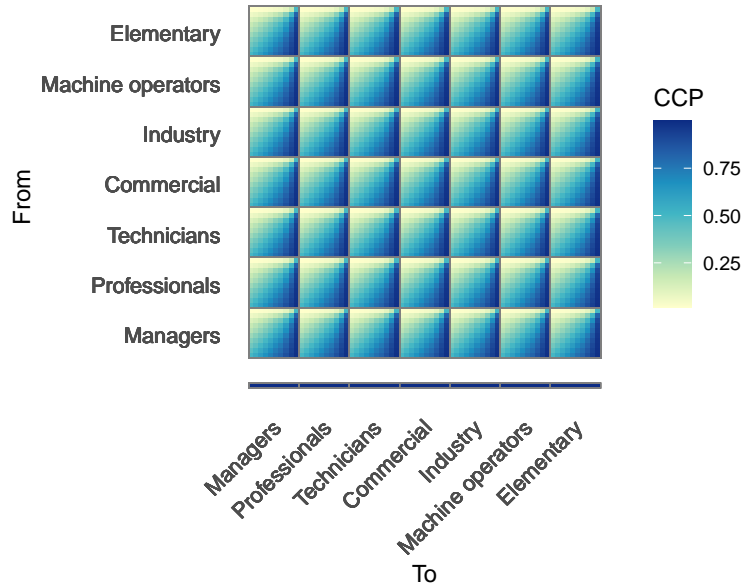
From	Elementary	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.87
	Machine operators	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.87
	Industry	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.87
	Commercial	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.87
	Technicians	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.87
	Professionals	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.87
	Managers	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.87
	Out of labor force	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.93
		Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary	Total
		To							

**Figure 1.9: Mean switching costs**

From	Elementary	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Machine operators	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Technicians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Professionals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Managers	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Out of labor force	0.28	0.28	0.28	0.28	0.28	0.28	0.28
		Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary
		To						



**Figure 1.10:** Conditional choice probabilities of accepting offers



**Table 1.4:** Compensating differentials

Occupation	$\beta$	$\psi_a$	Comp. diff.
Managers	1.78	0.53	1.00
Professionals		0.53	1.00
Technicians		0.53	1.00
Commercial		0.53	1.00
Industry		0.53	1.00
Machine operators		0.53	1.00
Elementary		0.53	1.00

### 1.3 Only occupational labor market frictions

Figure 1.11: Hazard rates

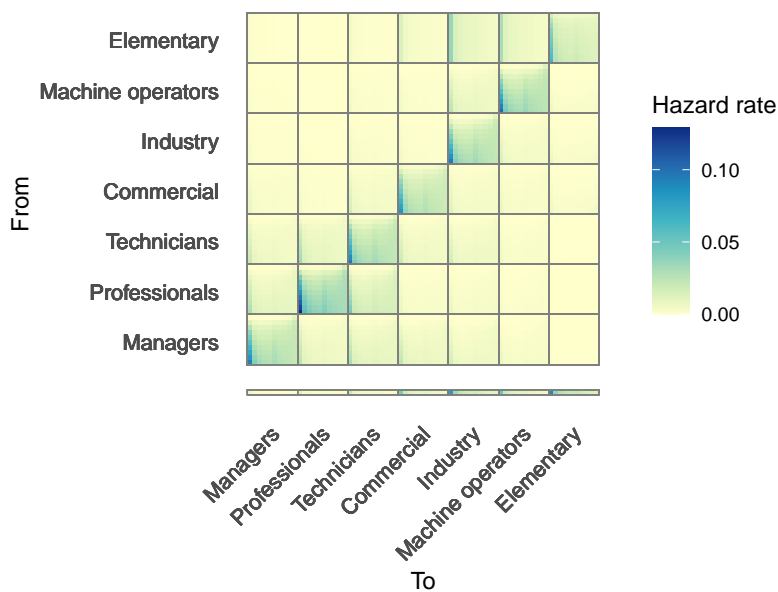
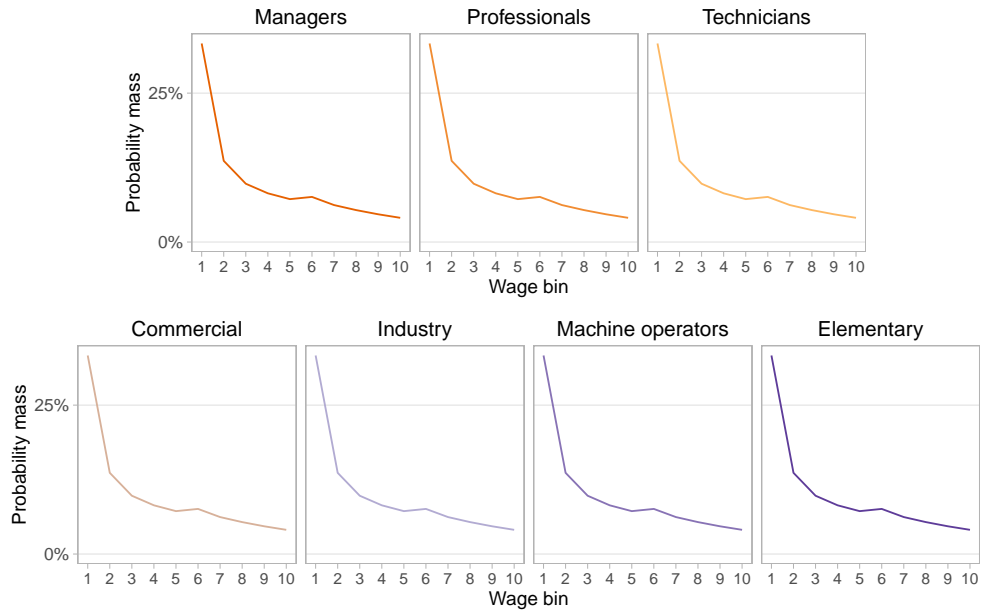


Table 1.5: Job separation rates

Occupation	Job separation rate
Managers	0.24
Professionals	0.23
Technicians	0.25
Commercial	0.45
Industry	0.36
Machine operators	0.33
Elementary	0.98

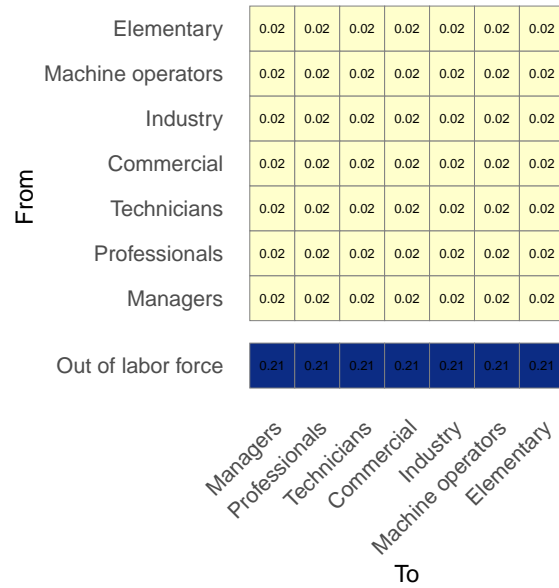
**Figure 1.12: Offered wages**



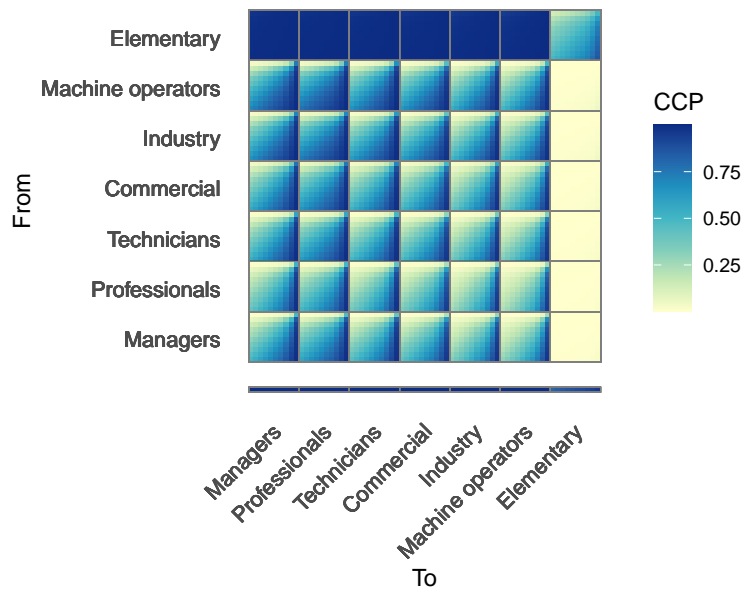
**Figure 1.13: Offer arrival rates**

	Elementary	0.01	0.00	0.02	0.04	0.11	0.09	0.39	0.66
	Machine operators	0.01	0.00	0.03	0.03	0.14	0.62	2.39	3.22
	Industry	0.02	0.01	0.03	0.03	0.57	0.10	3.07	3.82
	Commercial	0.05	0.02	0.09	0.51	0.10	0.07	4.33	5.18
	Technicians	0.12	0.16	0.58	0.13	0.15	0.07	0.95	2.15
	Professionals	0.23	0.78	0.39	0.07	0.10	0.05	0.19	1.81
	Managers	0.56	0.13	0.20	0.17	0.15	0.09	0.75	2.05
	Out of labor force	0.02	0.04	0.06	0.13	0.25	0.15	0.33	0.99
From		Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary	Total
		To							

**Figure 1.14:** Mean switching costs



**Figure 1.15:** Conditional choice probabilities of accepting offers

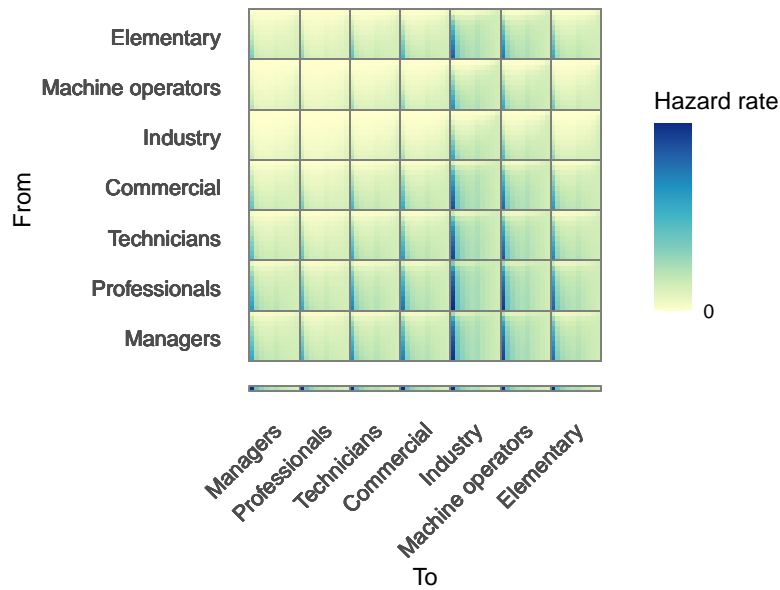


**Table 1.6:** Compensating differentials

Occupation	$\beta$	$\psi_a$	Comp. diff.
Managers	1.53	0.00	1.00
Professionals		0.00	1.00
Technicians		0.00	1.00
Commercial		0.00	1.00
Industry		0.00	1.00
Machine operators		0.00	1.00
Elementary		0.00	1.00

## 1.4 Only occupational non-wage amenities

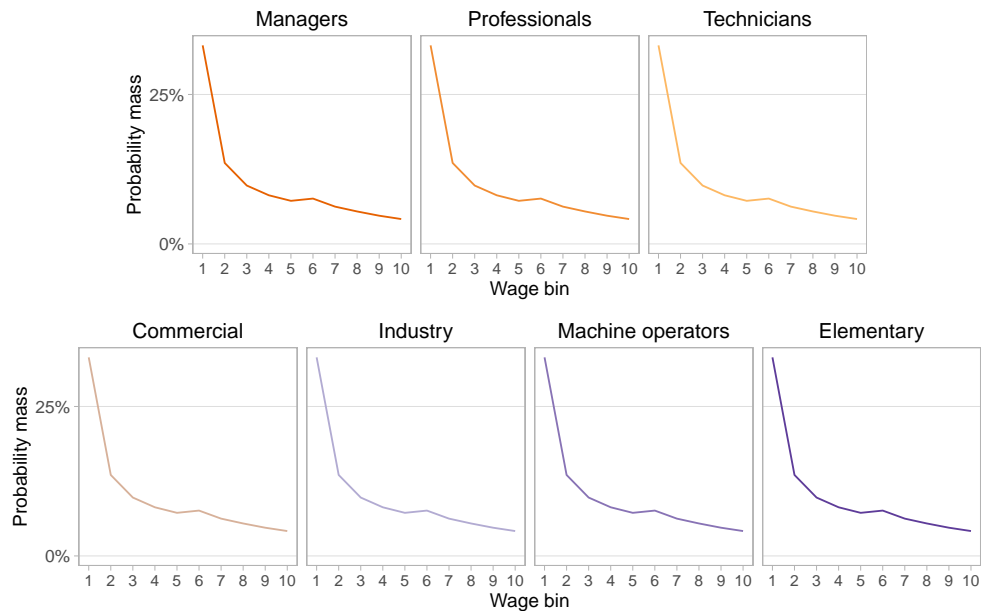
**Figure 1.16:** Hazard rates



**Table 1.7:** Job separation rates

Occupation	Job separation rate
Managers	0.41
Professionals	0.41
Technicians	0.41
Commercial	0.41
Industry	0.41
Machine operators	0.41
Elementary	0.41

**Figure 1.17:** Offered wages



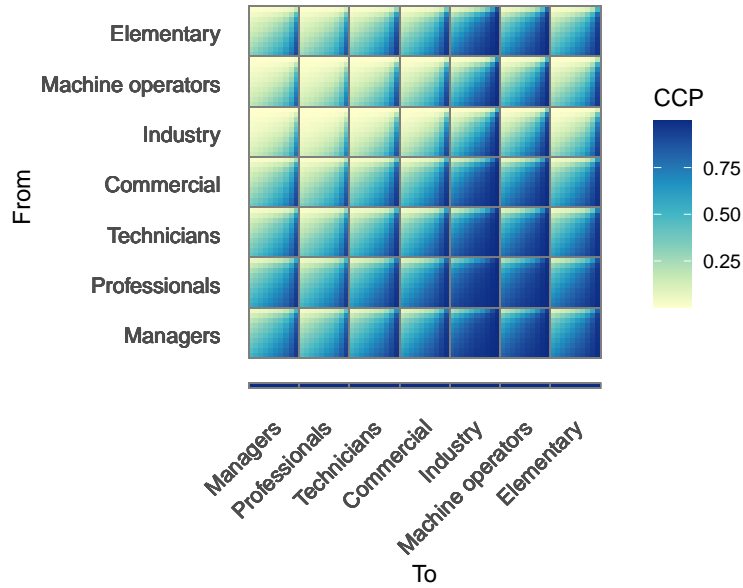
**Figure 1.18: Offer arrival rates**

From	Elementary	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.06
	Machine operators	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.06
	Industry	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.06
	Commercial	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.06
	Technicians	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.06
	Professionals	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.06
	Managers	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.06
	Out of labor force	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.93
		Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary	Total
		To							

**Figure 1.19: Mean switching costs**

From	Elementary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Machine operators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Technicians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Professionals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Managers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Out of labor force	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
		Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary	
		To							

**Figure 1.20:** Conditional choice probabilities of accepting offers



**Table 1.8:** Compensating differentials

Occupation	$\beta$	$\psi_a$	Comp. diff.
Managers	1.70	-1.31	0.37
Professionals		-1.54	0.33
Technicians		-0.90	0.48
Commercial		-0.65	0.55
Industry		0.66	1.19
Machine operators		0.35	1.00
Elementary		-0.36	0.66



## 1.5 Only occupational switching costs

Figure 1.21: Hazard rates

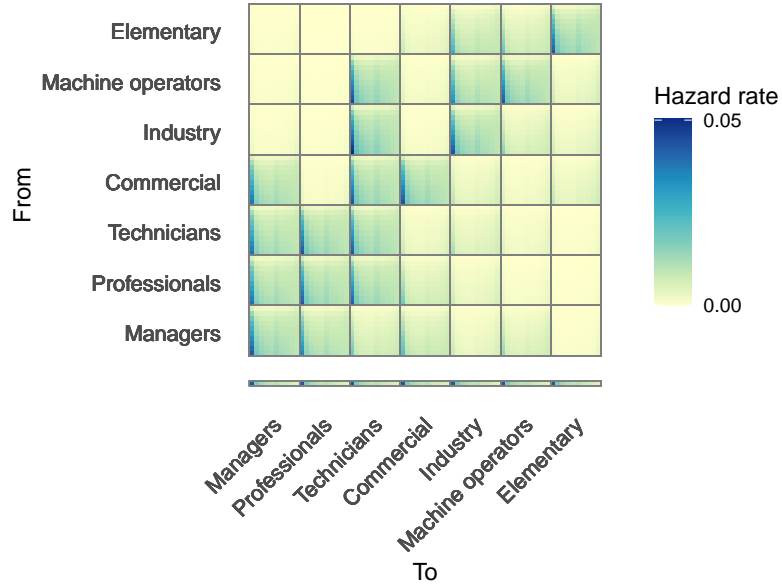
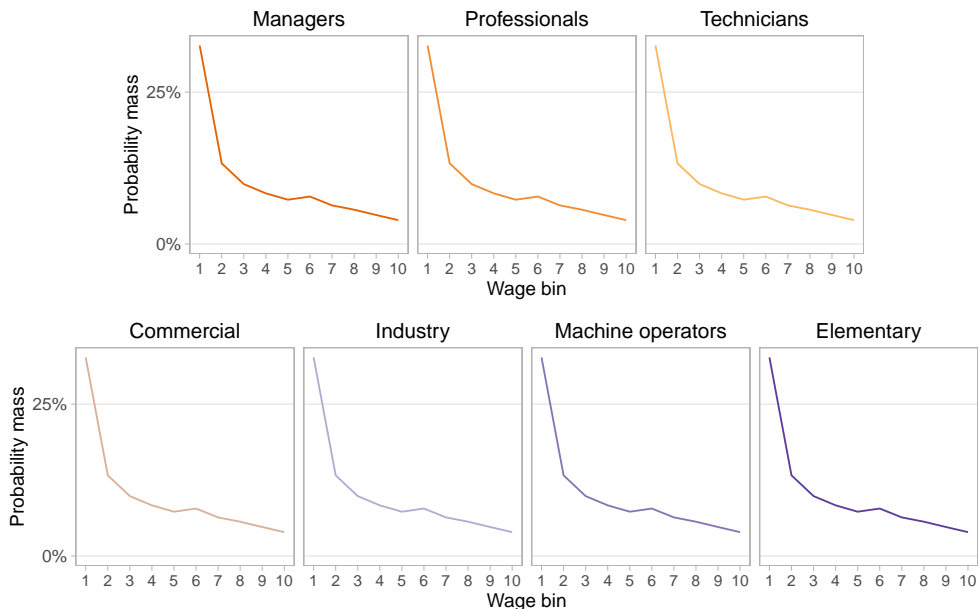


Table 1.9: Job separation rates

Occupation	Job separation rate
Managers	0.41
Professionals	0.41
Technicians	0.41
Commercial	0.41
Industry	0.41
Machine operators	0.41
Elementary	0.41

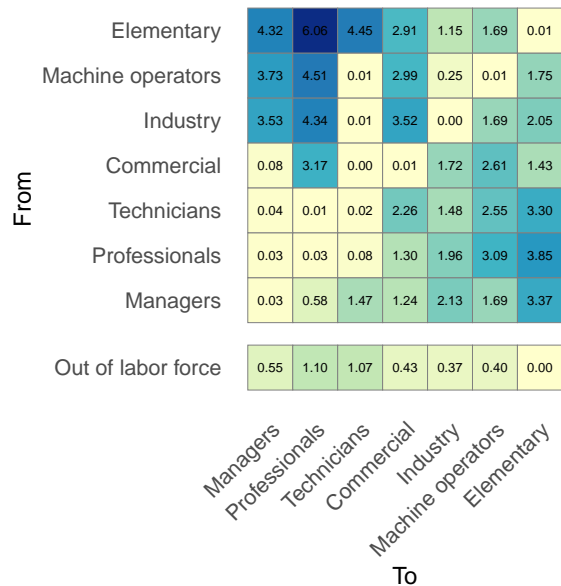
**Figure 1.22: Offered wages**



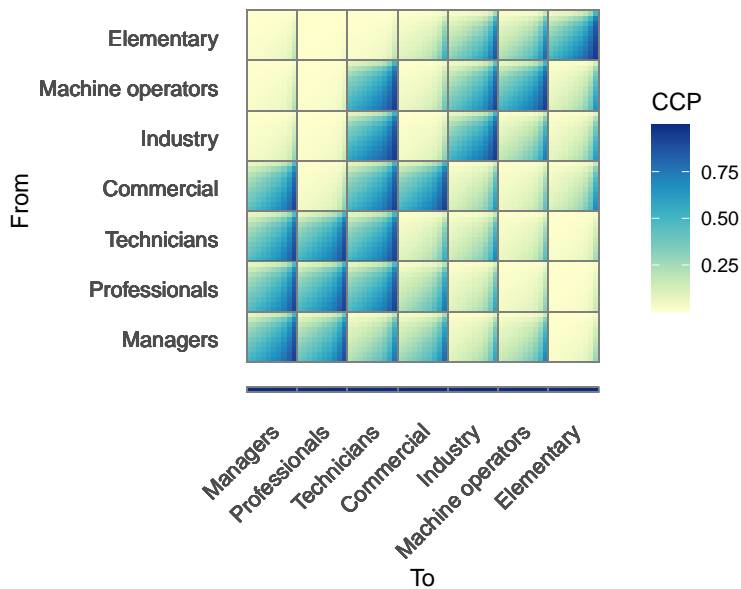
**Figure 1.23: Offer arrival rates**

	Managers	Professionals	Technicians	Commercial	Industry	Machine operators	Elementary	Total
Elementary	0.27	0.27	0.27	0.27	0.27	0.27	0.27	1.87
Machine operators	0.27	0.27	0.27	0.27	0.27	0.27	0.27	1.87
Industry	0.27	0.27	0.27	0.27	0.27	0.27	0.27	1.87
Commercial	0.27	0.27	0.27	0.27	0.27	0.27	0.27	1.87
Technicians	0.27	0.27	0.27	0.27	0.27	0.27	0.27	1.87
Professionals	0.27	0.27	0.27	0.27	0.27	0.27	0.27	1.87
Managers	0.27	0.27	0.27	0.27	0.27	0.27	0.27	1.87
Out of labor force	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.93

**Figure 1.24:** Mean switching costs



**Figure 1.25:** Conditional choice probabilities of accepting offers



**Table 1.10:** Compensating differentials

Occupation	$\beta$	$\psi_a$	Comp. diff.
Managers	1.11	0.51	1.00
Professionals		0.51	1.00
Technicians		0.51	1.00
Commercial		0.51	1.00
Industry		0.51	1.00
Machine operators		0.51	1.00
Elementary		0.51	1.00

## 2 Auxiliary model estimates with unobserved heterogeneity

### 2.1 No occupational heterogeneity

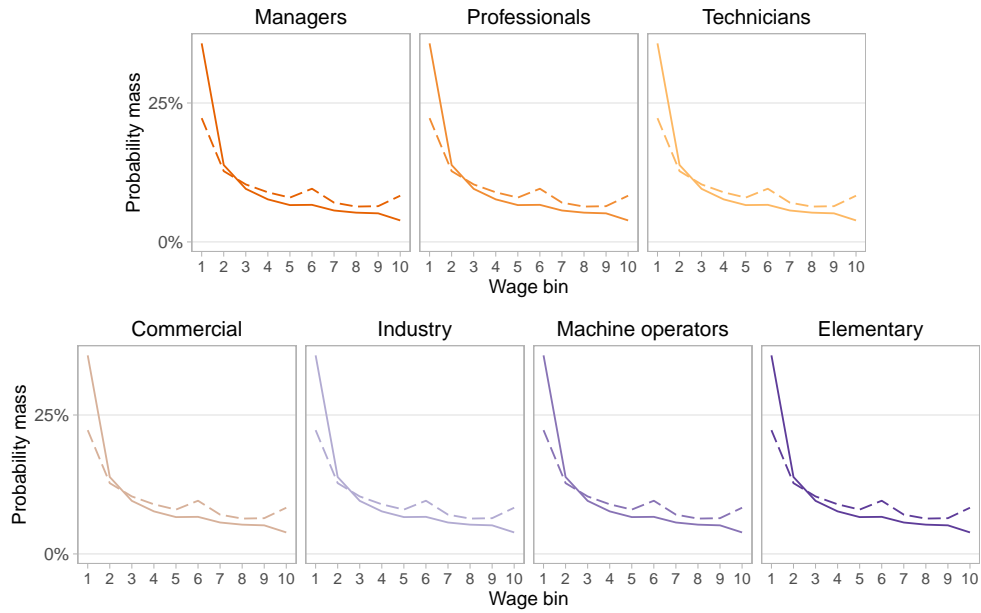
Figure 2.1: Type probabilities



**Table 2.1:** Job separation rates

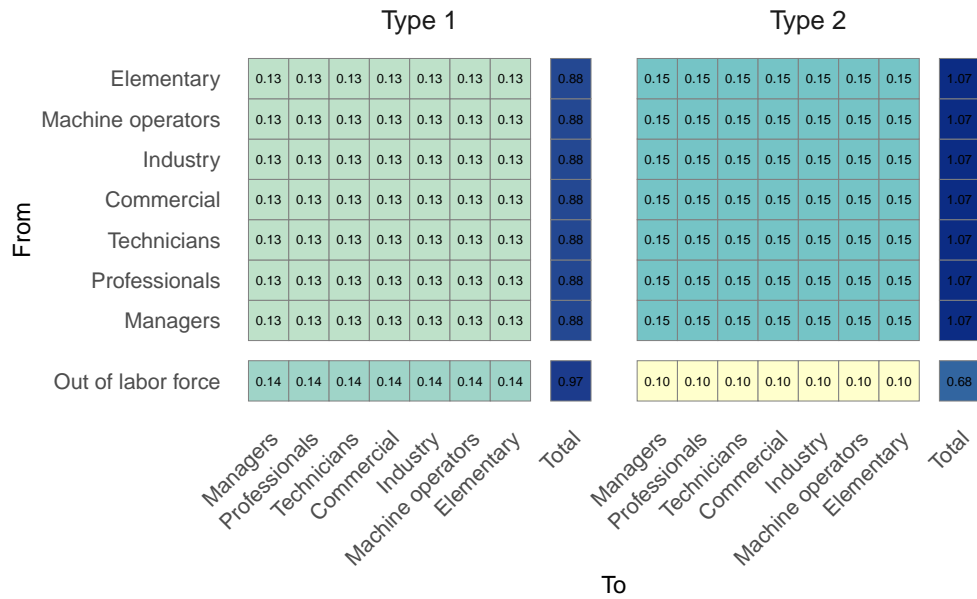
Occupation	Type 1	Type 2
Managers	0.44	0.26
Professionals	0.44	0.26
Technicians	0.44	0.26
Commercial	0.44	0.26
Industry	0.44	0.26
Machine operators	0.44	0.26
Elementary	0.44	0.26

**Figure 2.2:** Offered wages



*Notes:* Type 1: solid lines. Type 2: dashed lines.

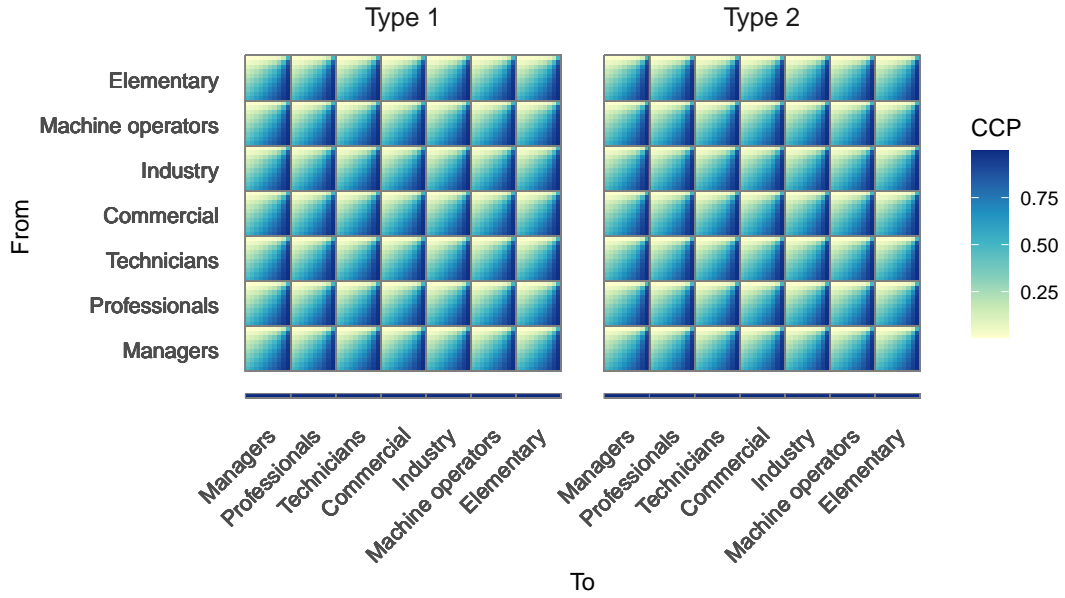
**Figure 2.3: Offer arrival rates**



**Figure 2.4: Mean switching costs**



**Figure 2.5:** Conditional choice probabilities of accepting offers



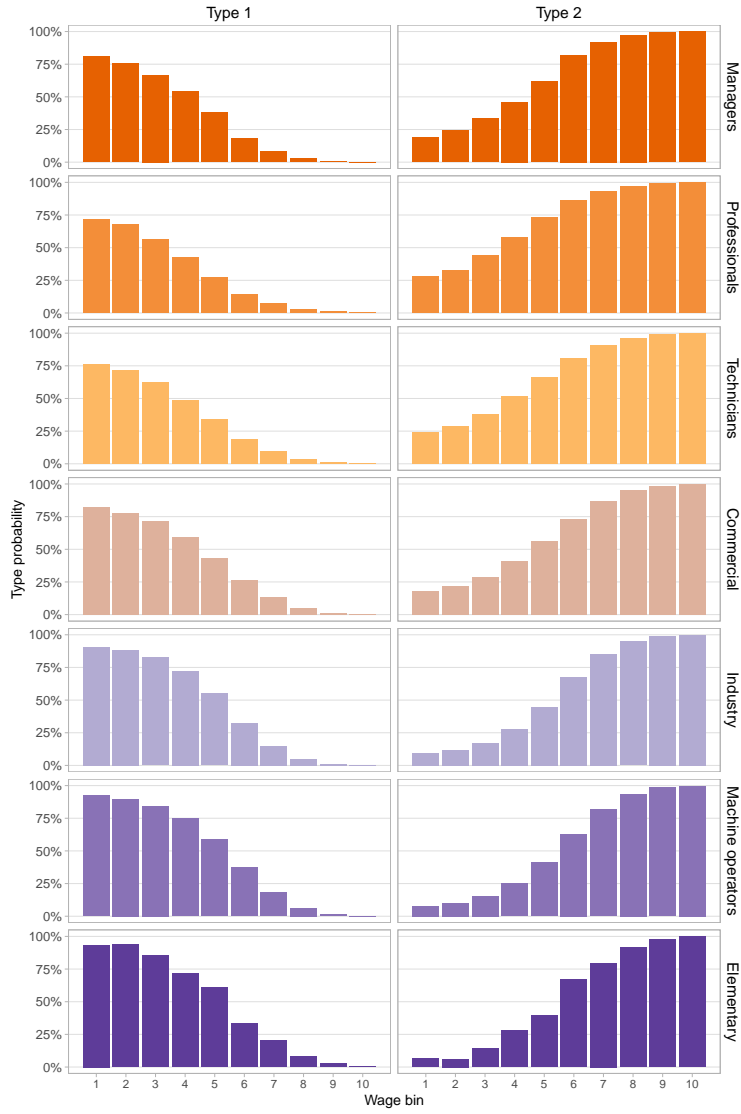
**Table 2.2:** Compensating differentials

Occupation	Type 1			Type 2		
	$\beta$	$\psi_a$	Comp. diff.	$\beta$	$\psi_a$	Comp. diff.
Managers	1.93	0.48	1.00	1.77	0.31	1.00
Professionals		0.48	1.00		0.31	1.00
Technicians		0.48	1.00		0.31	1.00
Commercial		0.48	1.00		0.31	1.00
Industry		0.48	1.00		0.31	1.00
Machine operators		0.48	1.00		0.31	1.00
Elementary		0.48	1.00		0.31	1.00



## 2.2 Only occupational wage offers

Figure 2.6: Type probabilities



**Table 2.3:** Job separation rates

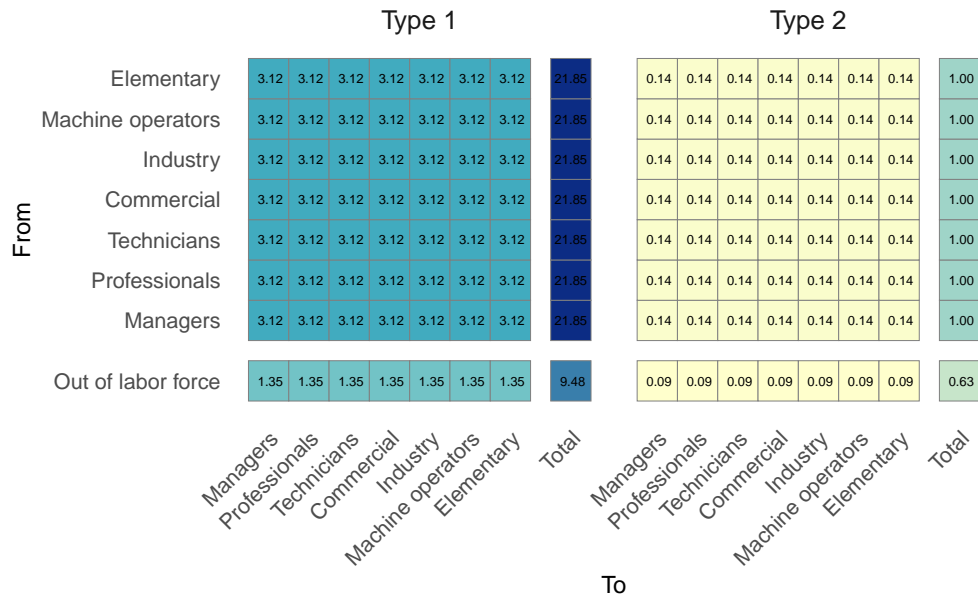
Occupation	Type 1	Type 2
Managers	0.59	0.23
Professionals	0.59	0.23
Technicians	0.59	0.23
Commercial	0.59	0.23
Industry	0.59	0.23
Machine operators	0.59	0.23
Elementary	0.59	0.23

**Figure 2.7:** Offered wages

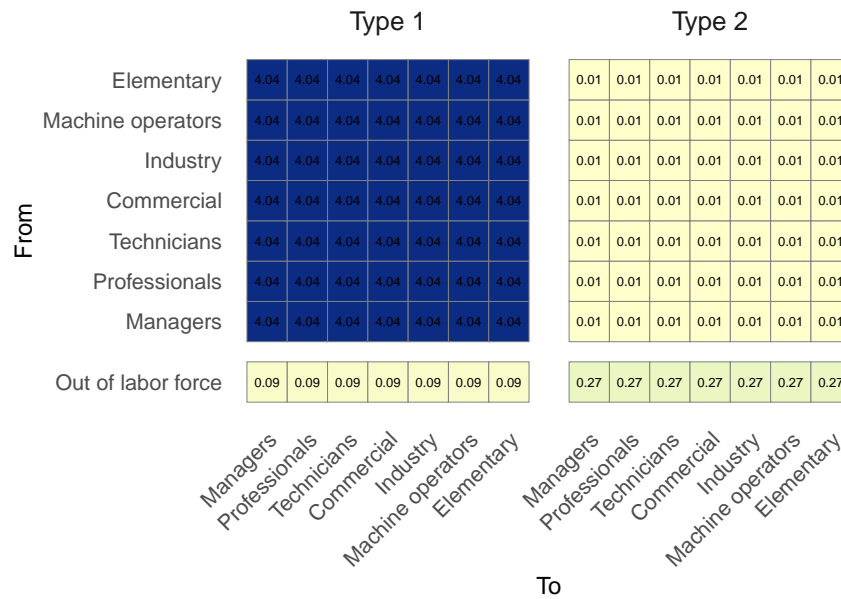


Notes: Type 1: solid lines. Type 2: dashed lines.

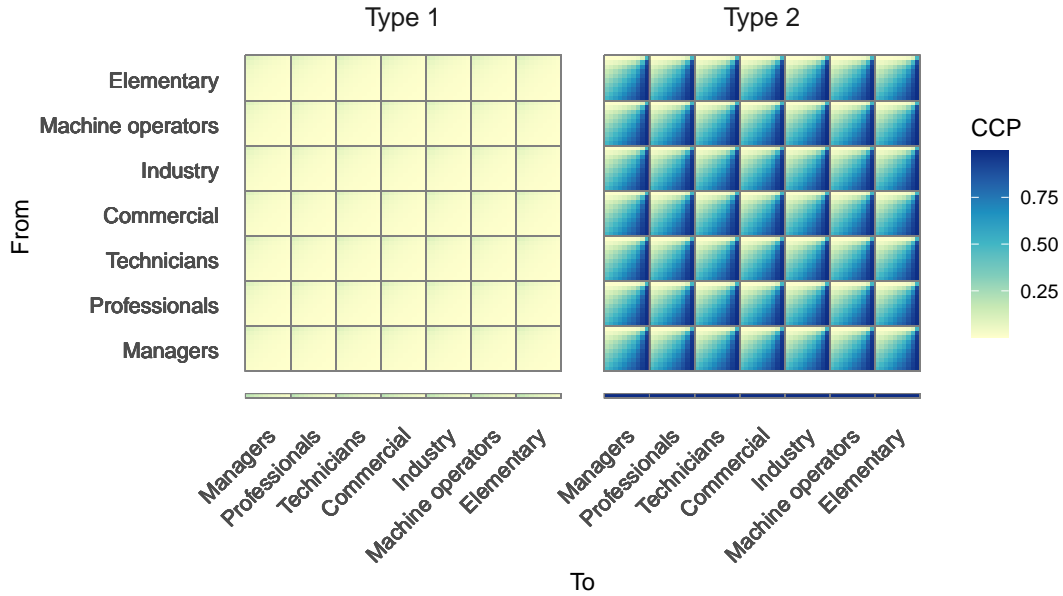
**Figure 2.8:** Offer arrival rates



**Figure 2.9:** Mean switching costs



**Figure 2.10:** Conditional choice probabilities of accepting offers

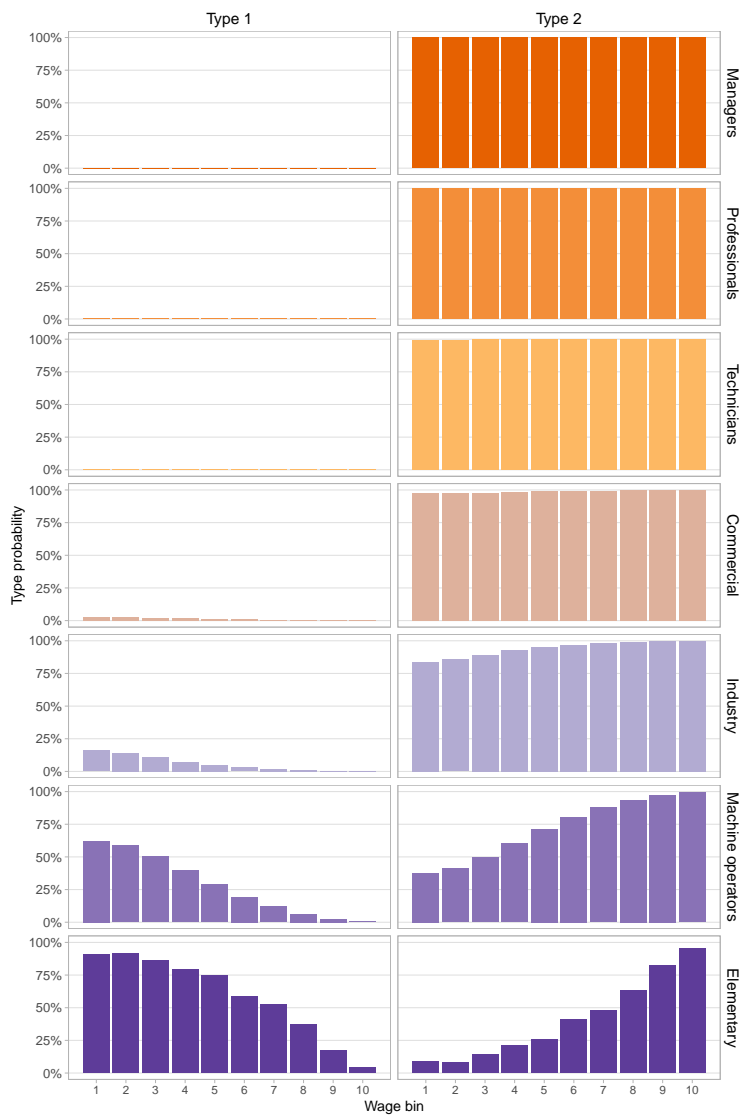


**Table 2.4:** Compensating differentials

Occupation	Type 1			Type 2		
	$\beta$	$\psi_a$	Comp. diff.	$\beta$	$\psi_a$	Comp. diff.
Managers	-1.49	4.18	1.00	1.92	0.93	1.00
Professionals		4.18	1.00		0.93	1.00
Technicians		4.18	1.00		0.93	1.00
Commercial		4.18	1.00		0.93	1.00
Industry		4.18	1.00		0.93	1.00
Machine operators		4.18	1.00		0.93	1.00
Elementary		4.18	1.00		0.93	1.00

## 2.3 Only occupational labor market frictions

Figure 2.11: Type probabilities



**Table 2.5:** Job separation rates

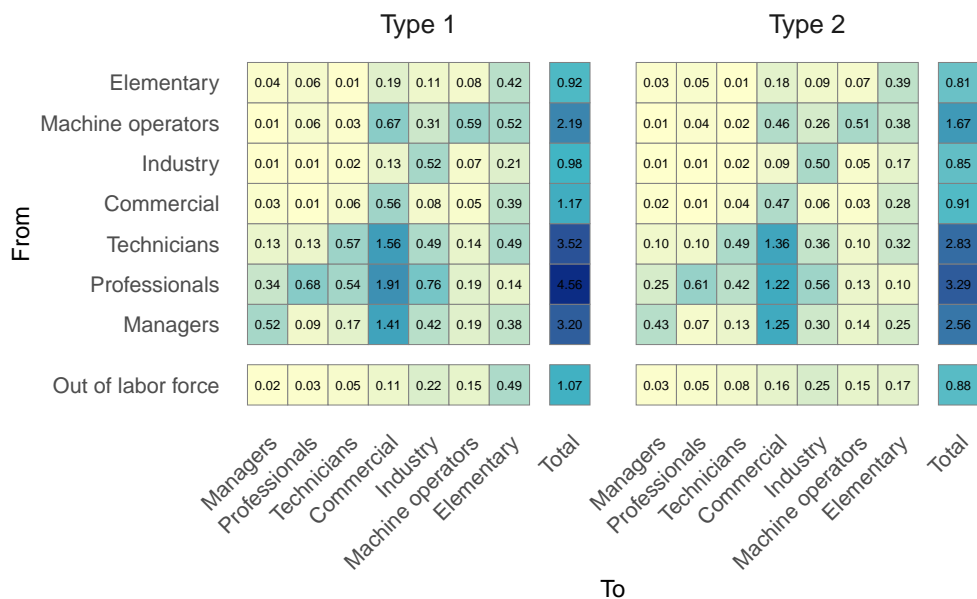
Occupation	Type 1	Type 2
Managers	0.37	0.27
Professionals	0.43	0.30
Technicians	0.35	0.30
Commercial	0.40	0.41
Industry	0.31	0.28
Machine operators	0.28	0.30
Elementary	1.36	0.55

**Figure 2.12:** Offered wages

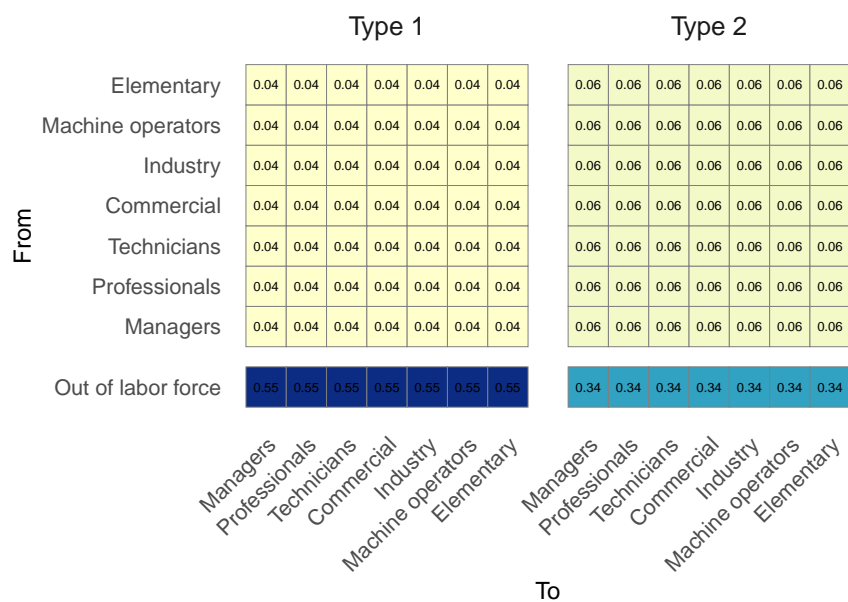


*Notes:* Type 1: solid lines. Type 2: dashed lines.

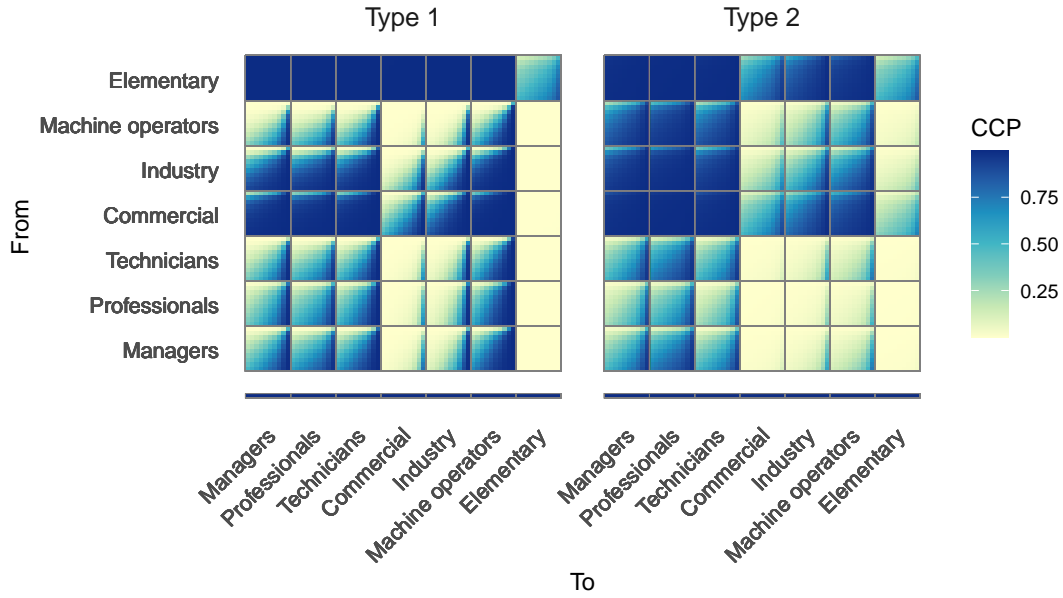
**Figure 2.13: Offer arrival rates**



**Figure 2.14: Mean switching costs**



**Figure 2.15:** Conditional choice probabilities of accepting offers



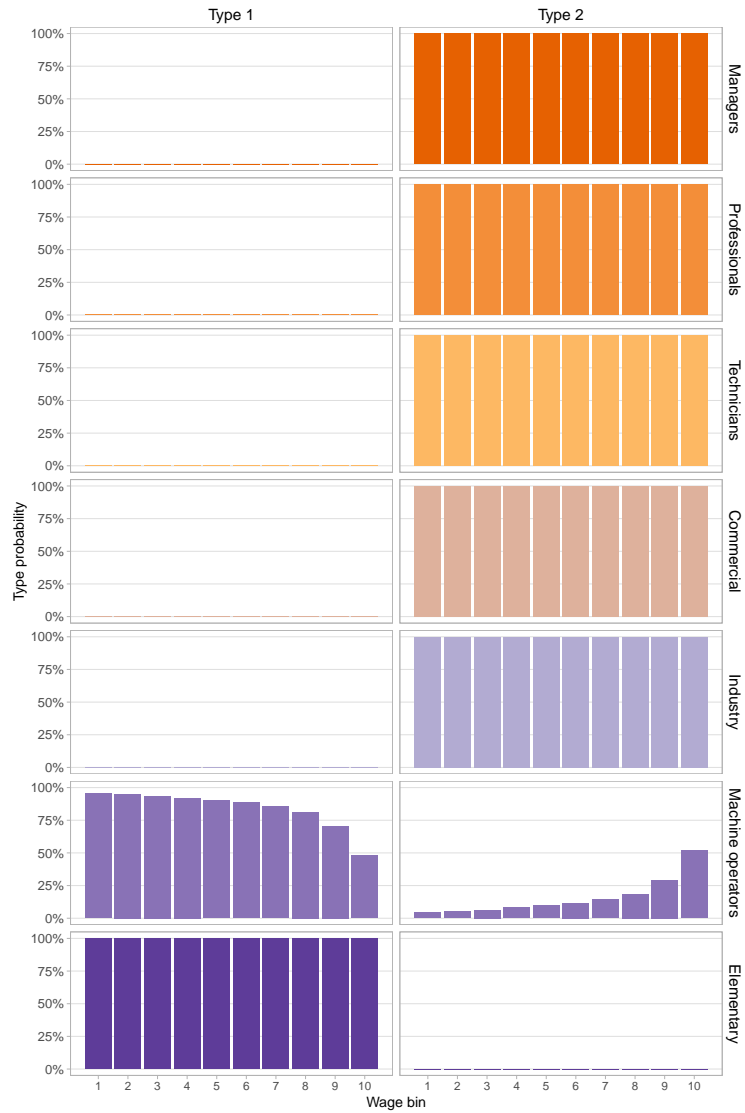
**Table 2.6:** Compensating differentials

Occupation	Type 1			Type 2		
	$\beta$	$\psi_a$	Comp. diff.	$\beta$	$\psi_a$	Comp. diff.
Managers	2.25	0.37	1.00	1.10	0.32	1.00
Professionals		0.37	1.00		0.32	1.00
Technicians		0.37	1.00		0.32	1.00
Commercial		0.37	1.00		0.32	1.00
Industry		0.37	1.00		0.32	1.00
Machine operators		0.37	1.00		0.32	1.00
Elementary		0.37	1.00		0.32	1.00



## 2.4 Only occupational non-wage amenities

Figure 2.16: Type probabilities



**Table 2.7:** Job separation rates

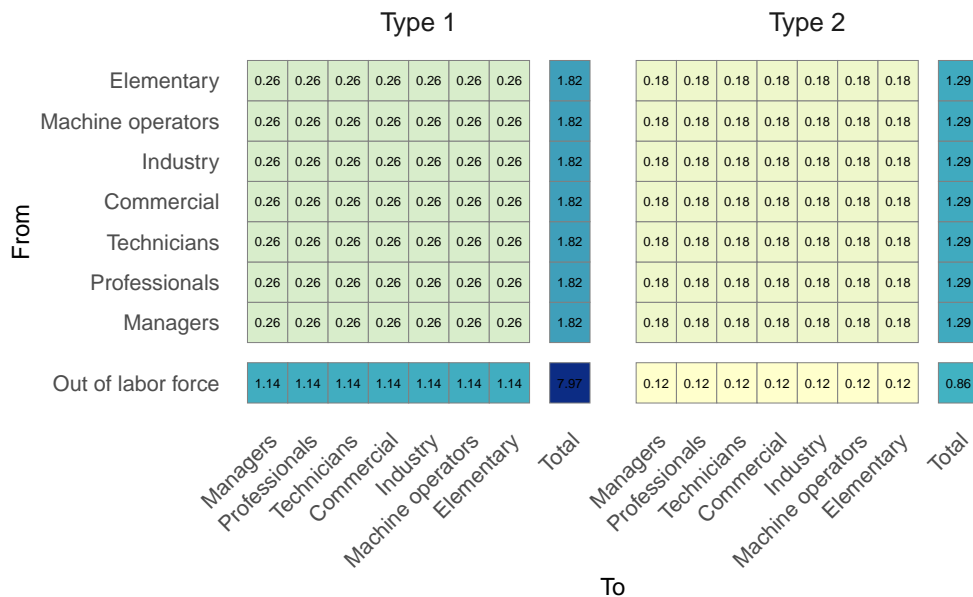
Occupation	Type 1	Type 2
Managers	0.61	0.33
Professionals	0.61	0.33
Technicians	0.61	0.33
Commercial	0.61	0.33
Industry	0.61	0.33
Machine operators	0.61	0.33
Elementary	0.61	0.33

**Figure 2.17:** Offered wages



*Notes:* Type 1: solid lines. Type 2: dashed lines.

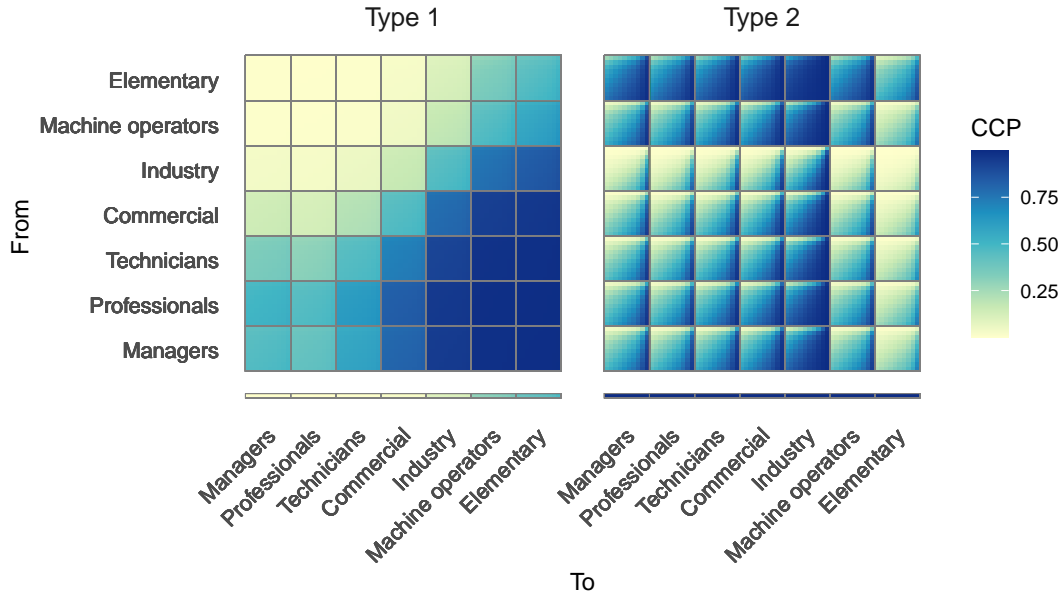
**Figure 2.18: Offer arrival rates**



**Figure 2.19: Mean switching costs**



**Figure 2.20:** Conditional choice probabilities of accepting offers

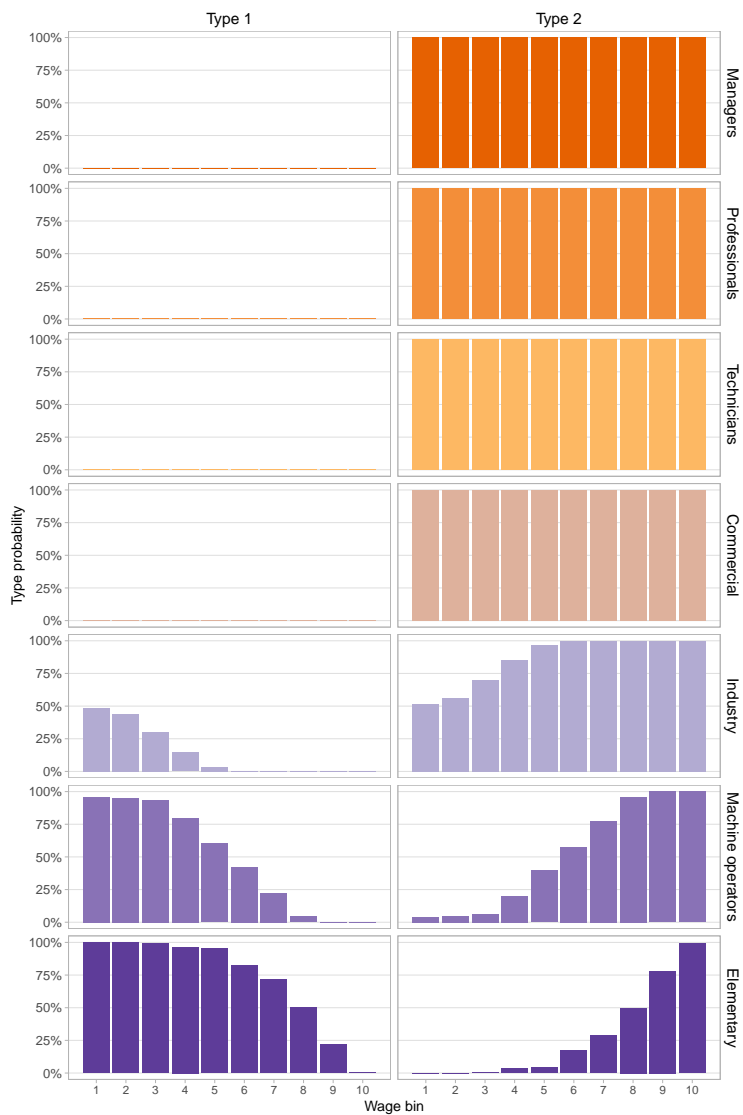


**Table 2.8:** Compensating differentials

Occupation	Type 1			Type 2		
	$\beta$	$\psi_a$	Comp. diff.	$\beta$	$\psi_a$	Comp. diff.
Managers	0.16	-2.63	0.00	1.57	1.28	1.17
Professionals		-2.99	0.00		1.10	1.05
Technicians		-1.71	0.00		1.49	1.34
Commercial		0.26	0.00		1.80	1.63
Industry		2.40	0.00		2.73	2.95
Machine operators		3.96	1.00		1.03	1.00
Elementary		4.42	19.08		-0.34	0.42

## 2.5 Only occupational switching costs

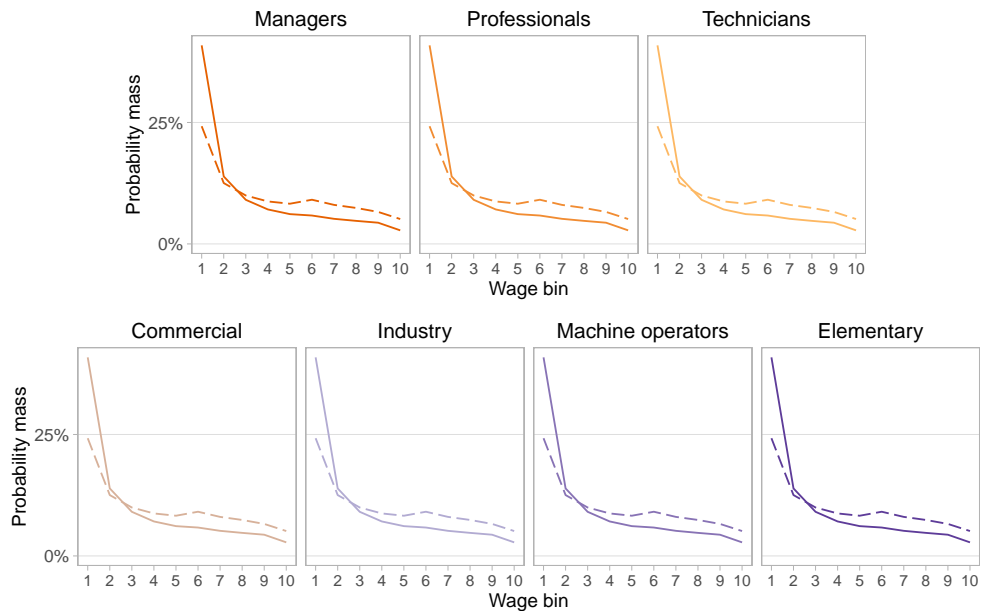
Figure 2.21: Type probabilities



**Table 2.9:** Job separation rates

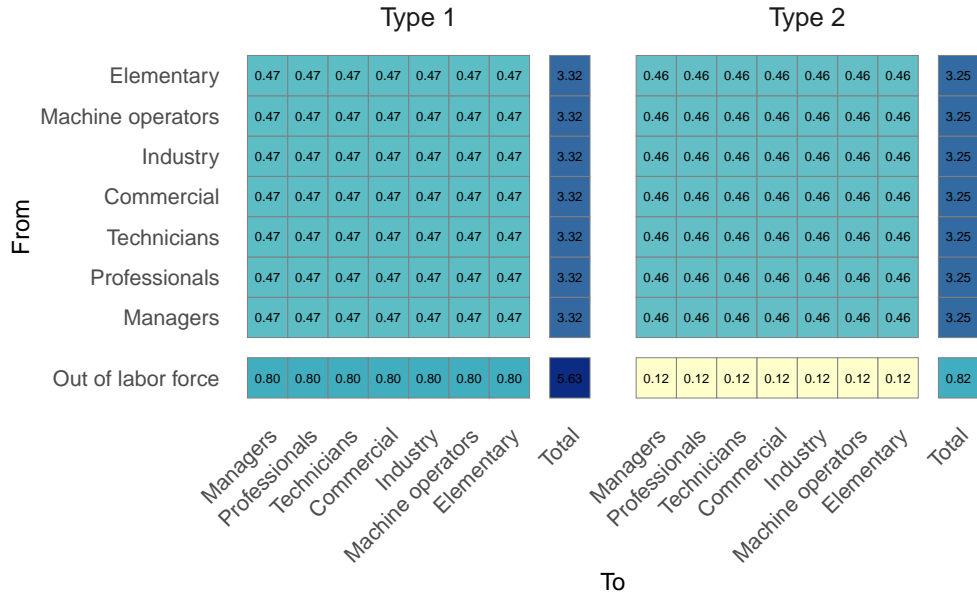
Occupation	Type 1	Type 2
Managers	0.67	0.30
Professionals	0.67	0.30
Technicians	0.67	0.30
Commercial	0.67	0.30
Industry	0.67	0.30
Machine operators	0.67	0.30
Elementary	0.67	0.30

**Figure 2.22:** Offered wages

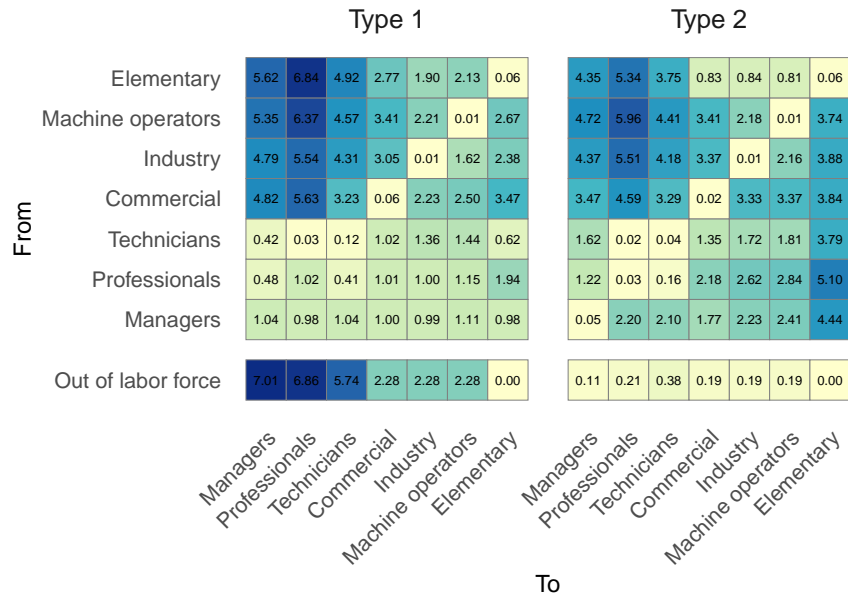


*Notes:* Type 1: solid lines. Type 2: dashed lines.

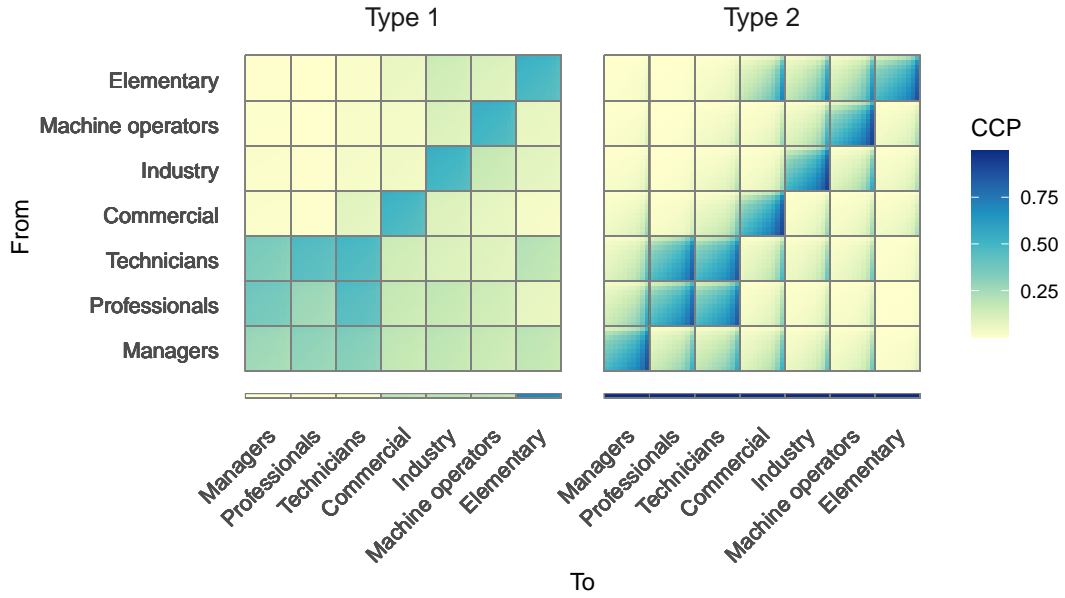
**Figure 2.23:** Offer arrival rates



**Figure 2.24:** Mean switching costs



**Figure 2.25:** Conditional choice probabilities of accepting offers



**Table 2.10:** Compensating differentials

Occupation	Type 1			Type 2		
	$\beta$	$\psi_a$	Comp. diff.	$\beta$	$\psi_a$	Comp. diff.
Managers	-0.14	3.16	1.00	0.87	1.12	1.00
Professionals		3.16	1.00		1.12	1.00
Technicians		3.16	1.00		1.12	1.00
Commercial		3.16	1.00		1.12	1.00
Industry		3.16	1.00		1.12	1.00
Machine operators		3.16	1.00		1.12	1.00
Elementary		3.16	1.00		1.12	1.00