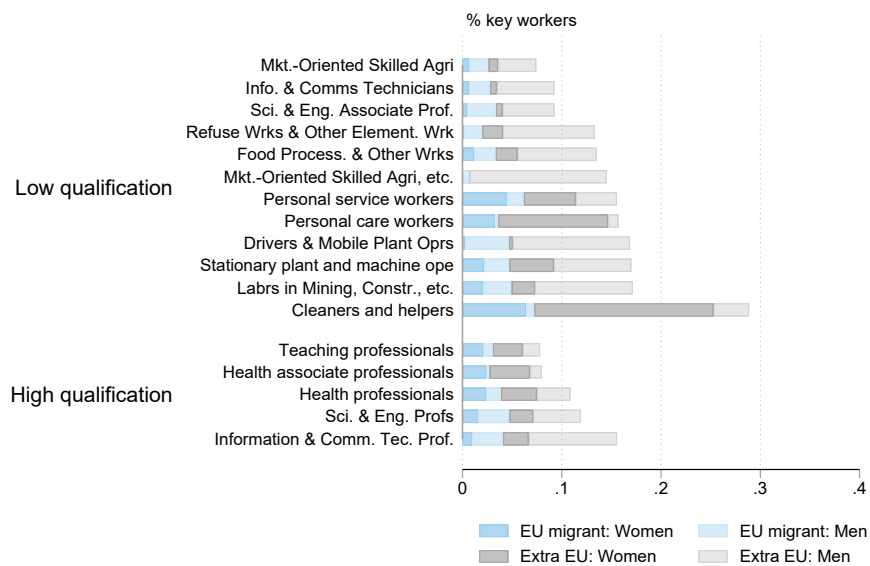


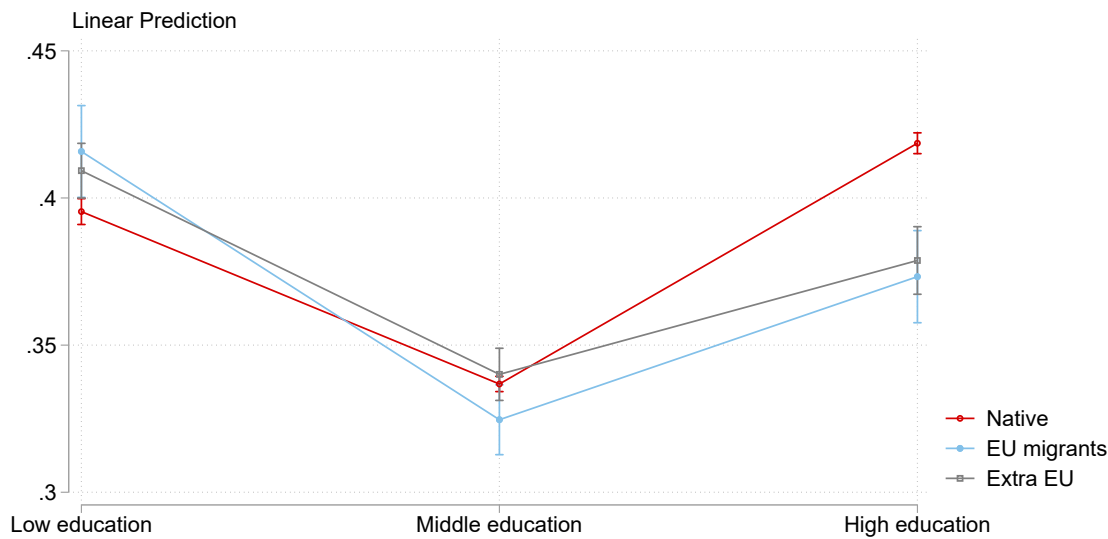
Appendix A – Appendix Figures

Figure A.1 – Share of Immigrants among Key Workers, by Key Occupation, Origin and Gender

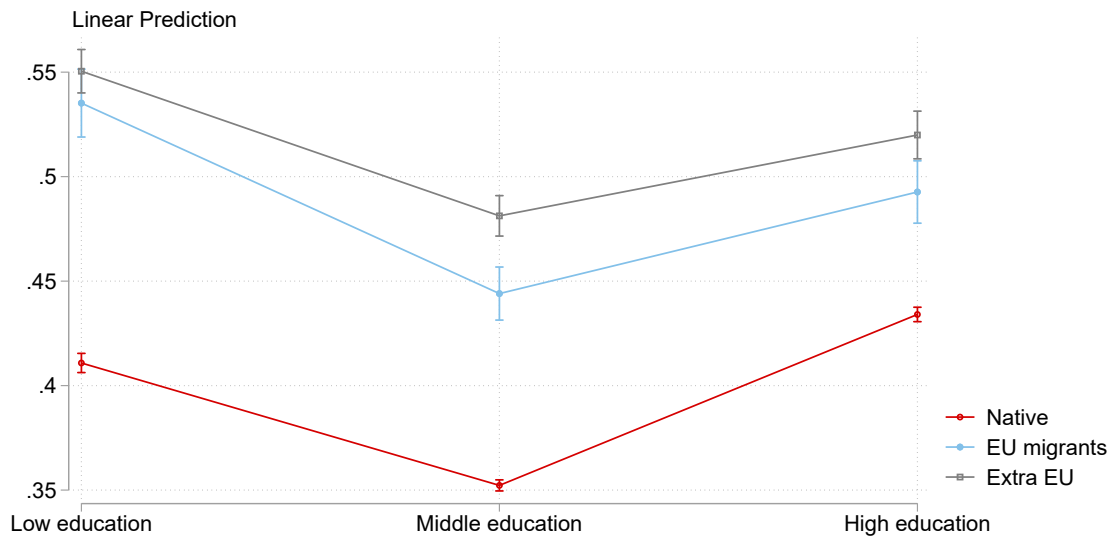


Note: The bars report the percentage of immigrants over total key workers for each ISCO 2-digit occupation and by gender. We define "high qualification" occupations as all occupations whose workforce median educational level is above ISCED level 3, while "low qualification" occupations are those whose workforce median level of education is equal to or below that level. Sample: EU-LFS data for the year 2019.

Figure A.2 – Probability of Being a Key Worker and Education, by Origin and Sex



(a) Men

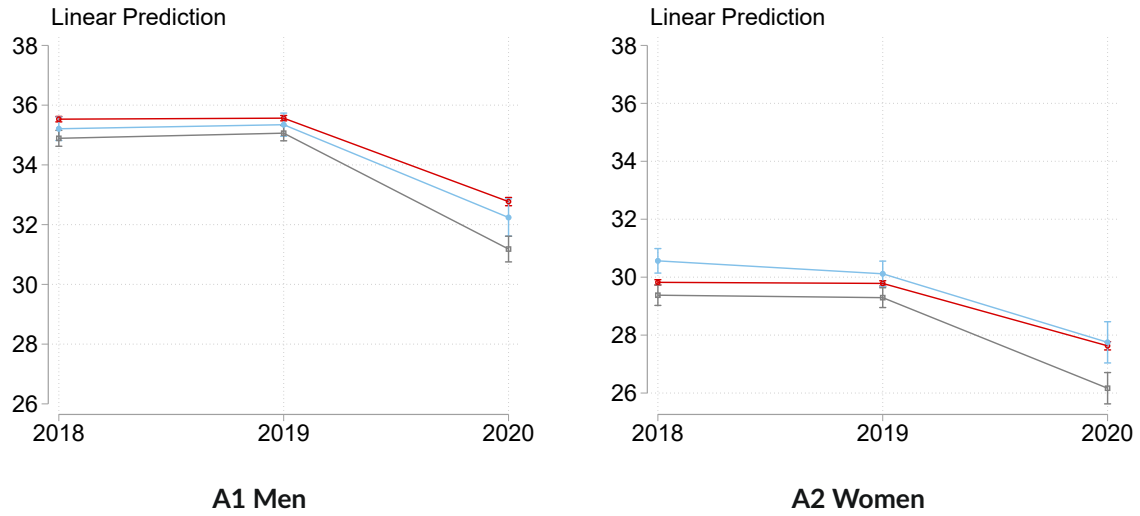


(b) Women

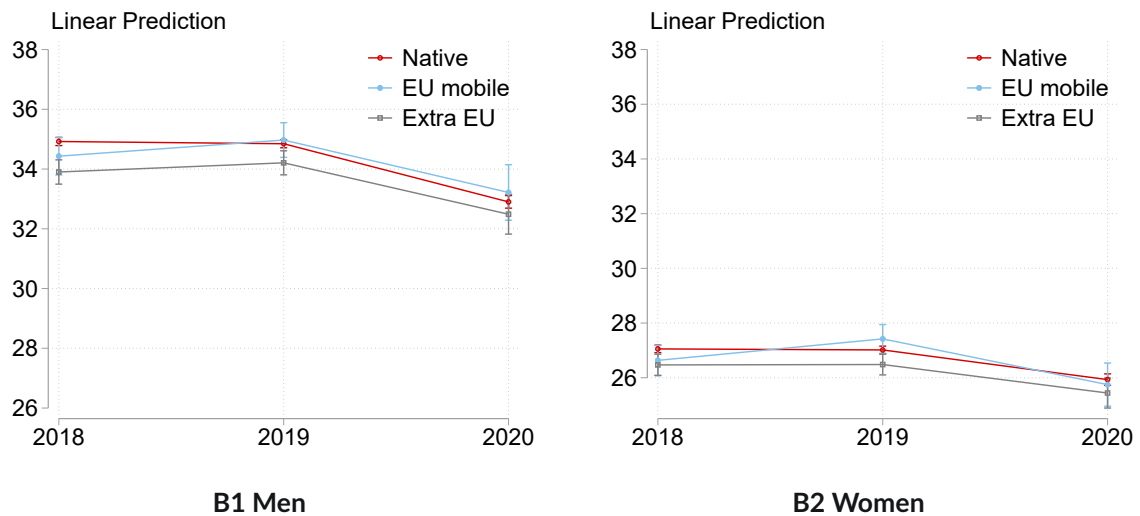
Note: The lines report the probabilities of being a key worker for each educational level and origin group for men (Panel A.2a) and women (Panel A.2b). The bars represent the 95% confidence intervals. The probabilities are estimated from regression equation (1).

Figure A.3 – Hours Worked by Gender and Origin

Panel A: Non-Key Workers



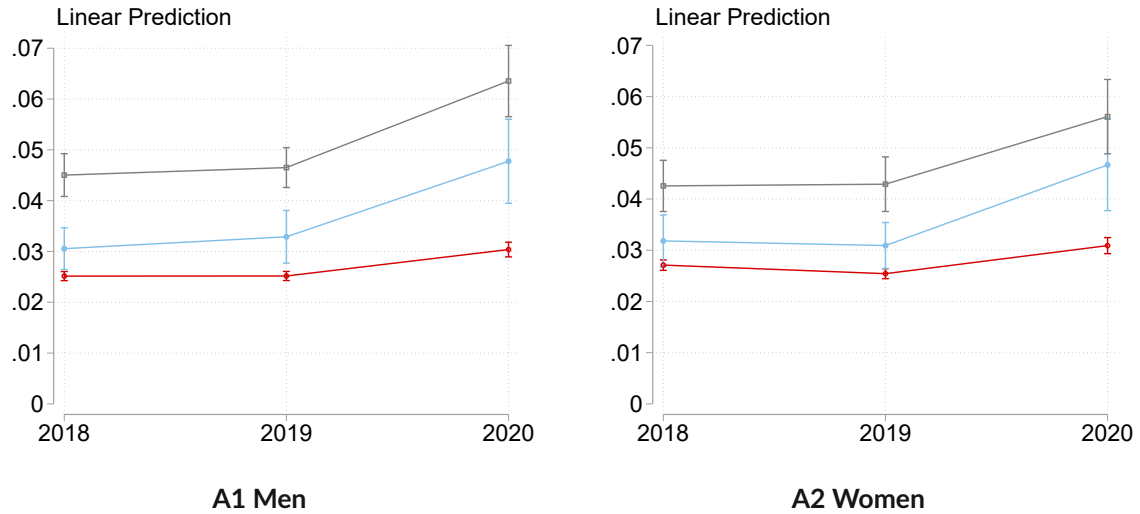
Panel B: Key Workers



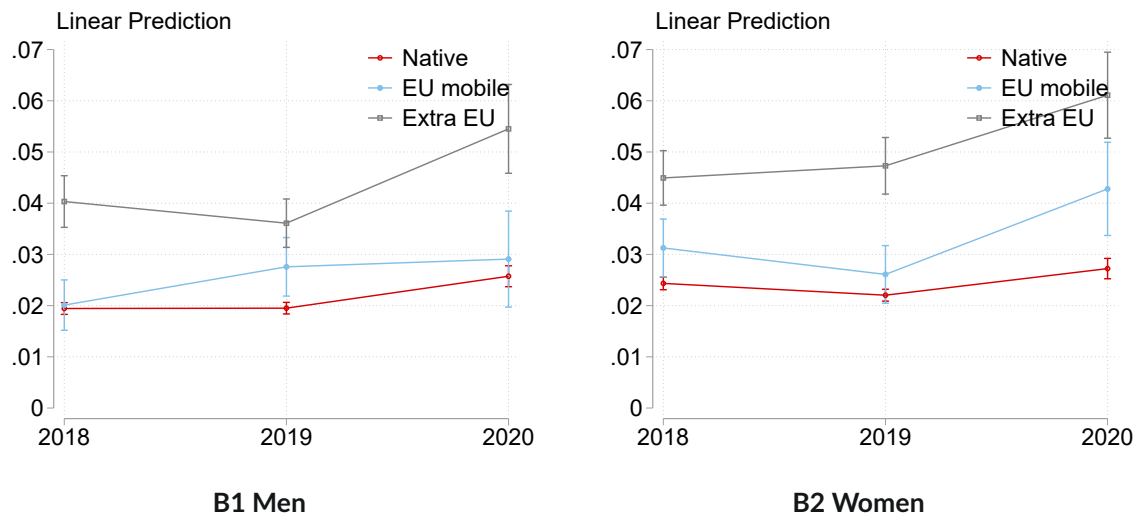
Note: The figure reports predicted weekly working hours for men (sub-figures A1 and B1) and women (sub-figures A2 and B2) by key worker status. **Panel A** shows Non-Key workers, and **Panel B** shows Key workers. Linear predictions are estimated from models described in equation (2) run separately for each group. The bars represent the 95% confidence intervals. Sample: EU-LFS data for 2018, 2019, and 2020.

Figure A.4 – Probability of Job Loss by Gender and Origin

Panel A: Non-Key Workers



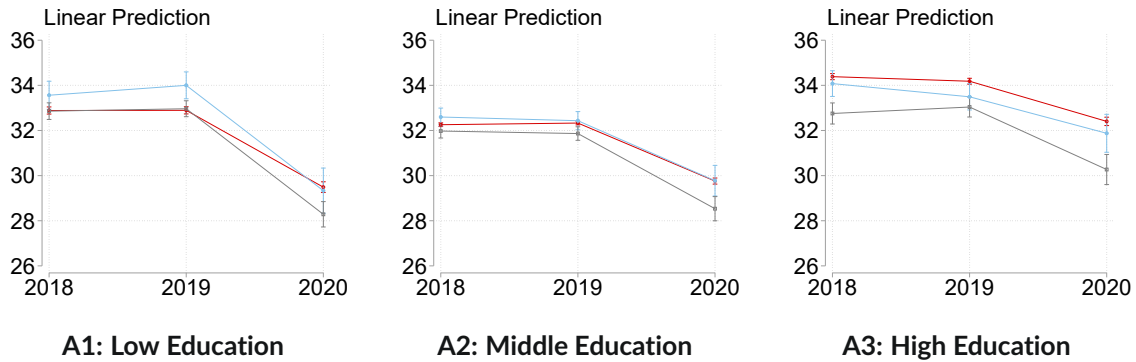
Panel B: Key Workers



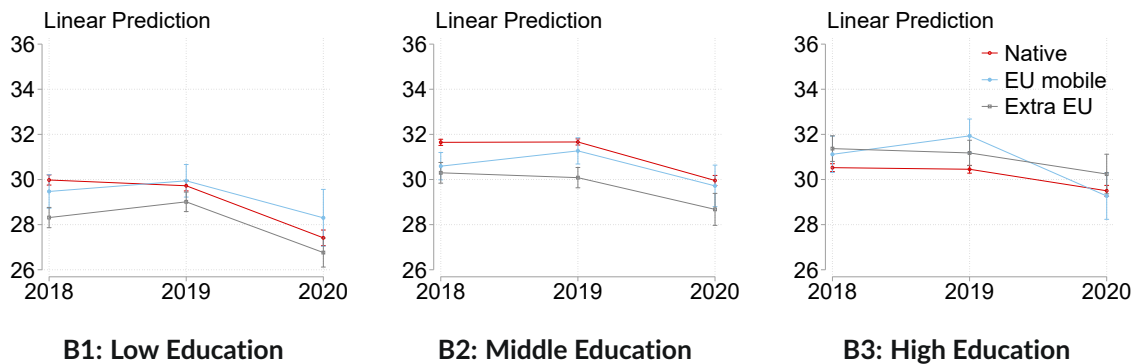
Note: The figure reports predicted probabilities of job loss for men (sub-figures A1 and B1) and women (sub-figures A2 and B2) by key worker status. **Panel A** shows Non-Key workers, and **Panel B** shows Key workers. Probabilities are estimated from models described in equation (2) run separately for each group. The bars represent the 95% confidence intervals. Sample: EU-LFS data for 2018, 2019, and 2020.

Figure A.5 – Hours Worked by Education Level and Key Status

Panel A: Non-Key Workers



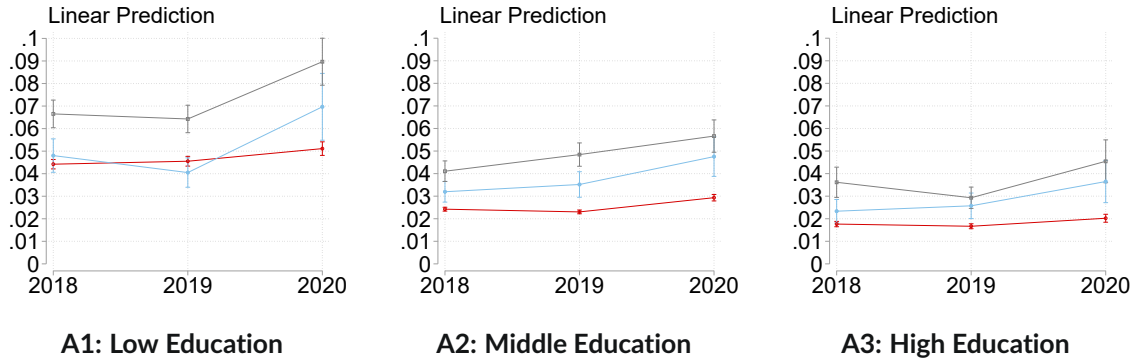
Panel B: Key Workers



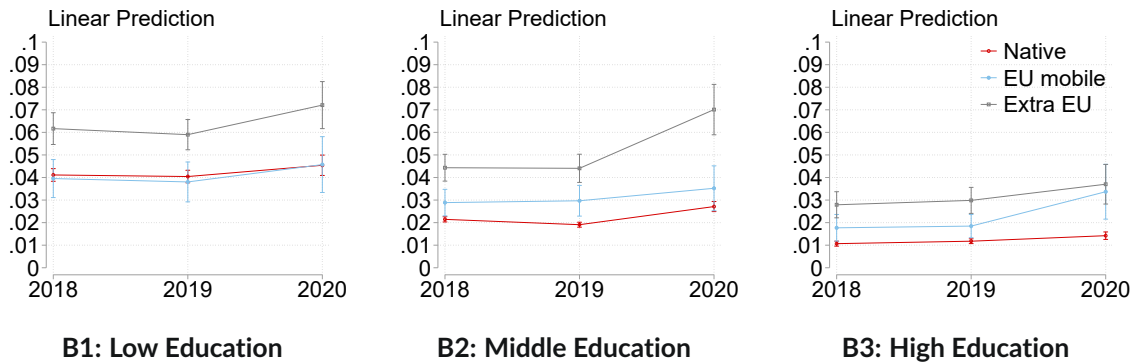
Note: The figure reports predicted hours worked by education level and key worker status. **Panel A** shows results for Non-Key workers, and **Panel B** for Key workers. Within each key worker status, sub-figures A1-A3 and B1-B3 correspond to education levels from low to high. Linear predictions are estimated from models described in equation (2), run separately for each group. The bars represent the 95% confidence intervals. Sample: EU-LFS data for 2018, 2019, and 2020.

Figure A.6 – Probability of Job Loss by Education Level and Origin

Panel A: Non-Key Workers



Panel B: Key Workers



Note: The figure reports predicted probabilities of job loss by education level and key worker status. **Panel A** shows results for Non-Key workers, and **Panel B** for Key workers. Within each key worker status, sub-figures A1-A3 and B1-B3 correspond to education levels from low to high. Probabilities are estimated from models described in equation (2), run separately for each group. The bars represent 95% confidence intervals. Sample: EU-LFS data for 2018, 2019, and 2020.

Appendix B – Appendix Tables

Table A.1 – Descriptive Statistics: EU-LFS 2019

	Native	EU migrants	Extra EU	Total
Woman	0.48 (0.50)	0.49 (0.50)	0.45 (0.50)	0.48 (0.50)
<i>Education:</i>				
Low education	0.15 (0.36)	0.26 (0.44)	0.34 (0.47)	0.17 (0.38)
Middle education	0.58 (0.49)	0.46 (0.50)	0.41 (0.49)	0.56 (0.50)
High education	0.27 (0.44)	0.28 (0.45)	0.25 (0.43)	0.27 (0.44)
Age	42.69 (12.02)	44.04 (11.21)	42.87 (11.03)	42.76 (11.90)
Key Worker	0.38 (0.48)	0.40 (0.49)	0.42 (0.49)	0.38 (0.49)
N	943,237	48,691	96,486	1,088,414

Note: Standard deviations in parentheses. Sample: EU-LFS data for 2019.

Table A.2 – Descriptive Statistics: Estimation Sample EU-LFS 2018, 2019, 2020

	2018	2019	2020	Total
Woman	0.48 (0.50)	0.48 (0.50)	0.46 (0.50)	0.47 (0.50)
<i>Education:</i>				
Low education	0.18 (0.38)	0.17 (0.38)	0.18 (0.39)	0.18 (0.38)
Middle education	0.56 (0.50)	0.56 (0.50)	0.52 (0.50)	0.55 (0.50)
High education	0.26 (0.44)	0.27 (0.44)	0.30 (0.46)	0.27 (0.45)
<i>Origin:</i>				
Native	0.87 (0.33)	0.87 (0.34)	0.86 (0.35)	0.87 (0.34)
EU migrants	0.04 (0.20)	0.04 (0.20)	0.05 (0.21)	0.04 (0.20)
Extra EU	0.09 (0.28)	0.09 (0.29)	0.10 (0.30)	0.09 (0.29)
Age	43.14 (11.44)	43.31 (11.48)	43.15 (11.61)	43.21 (11.50)
Key Worker	0.37 (0.48)	0.37 (0.48)	0.35 (0.48)	0.37 (0.48)
N	1,095,019	1,021,150	678,346	2,794,515

Note: Standard deviations in parentheses. Sample: EU-LFS data for 2018, 2019 and 2020.

Table A.3 – Key Workers Occupations

ISCO-08 2 digits	ISCO-08 3 digits
Science and Engineering Prof.	Life science professionals Engineering professionals
Health Professionals	Health professionals Medical doctors Nursing and midwifery Traditional and compl. medicine Paramedical practitioners Other health professions
Teaching Professionals	University and higher education teachers Vocational education teachers Secondary education teachers Primary school and early childhood teachers Other teaching professionals
ICT Professionals	Information and communication technology Software and applications developers Database and network professionals
Science & Eng. Associate prof.	Sci. and engineering assoc. professionals Physical and engineer science technicians Mining, manufacturing and constructions Process control technicians Life science technicians Ship and aircraft controllers and technicians
Health associate professionals	Medical and pharmaceutical technicians Nursing and midwifery
ICT Technicians	Information and communications technicians ICT operations and user support technicians Telecommunications and broadcasting technicians
Personal Service Workers	Travel attendants, conductors and guides Other personal services workers
Personal Care Workers	Personal care workers

	Child care workers and teachers' aides
	Personal care workers in health services
Market-oriented Skilled Agricultural Workers	Market-oriented skill agricultural workers
	Market gardeners and crop growers
	Animal producers
	Mixed crop and animal producers
Market-oriented Skilled Forestry Fishery	Fishery workers, hunters and trappers
Food Processing, etc.	Food processing and related trades workers
Stationary Plant and Machine Operators	Food and related products machine operators
Drivers and Mobile Plant Operators	Locomotive engine drivers
	Car, van and motorcycle drivers
	Heavy truck and bus drivers
	Ships' deck crews
Cleaners and Helpers	Domestic, hotel and office cleaners and helpers
	Vehicle, window, laundry and other cleaning workers
Labourers in Mining, Construction, Manufacturing	Transport and storage labourers
Refuse Workers	Refuse Workers

Table A.4 – Weekly Hours Worked - Occupation FEs

	(1) Full Sample	(2) Non-key Workers	(3) Key Workers
EU mobile	0.206* (0.123)	0.280* (0.150)	0.078 (0.210)
Extra EU	-0.109 (0.090)	-0.170 (0.113)	0.000 (0.150)
Woman	-4.768*** (0.040)	-4.792*** (0.047)	-4.672*** (0.074)
2019	-0.044 (0.039)	-0.026 (0.047)	-0.076 (0.069)
2020	-2.190*** (0.049)	-2.515*** (0.059)	-1.570*** (0.087)
2019 × EU mobile	0.190 (0.170)	-0.042 (0.210)	0.613** (0.287)
2019 × Extra EU	0.105 (0.123)	0.071 (0.154)	0.150 (0.205)
2020 × EU mobile	-0.136 (0.226)	-0.343 (0.284)	0.192 (0.372)
2020 × Extra EU	-0.546*** (0.163)	-1.064*** (0.206)	0.239 (0.266)
NUTS-2 FE	✓	✓	✓
Age FE	✓	✓	✓
Education dummies	✓	✓	✓
Occ. FE	✓	✓	✓
Obs.	2,701,001	1,769,582	931,419
R^2	0.098	0.073	0.132

Note: In this table, we report the results for estimating equation (2) on the full sample (column 1) and then separately on the sub-samples of non-key workers (column 2) and key workers (column 3). The outcome variable is weekly hours worked and we estimate this regression equation with OLS. All regressions are weighted using EU-LFS sampling weights. Robust standard errors in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Sample: EU-LFS data for 2018, 2019 and 2020.

Table A.5 – Probability of Job Separation - Occupation FEs

	(1) Full Sample	(2) Non-key Workers	(3) Key Workers
EU mobile	0.001 (0.001)	0.002 (0.001)	0.000 (0.002)
Extra EU	0.010*** (0.001)	0.008*** (0.001)	0.012*** (0.002)
Woman	0.002*** (0.000)	0.001** (0.000)	0.003*** (0.001)
2019	-0.001 (0.000)	-0.000 (0.000)	-0.001** (0.001)
2020	0.004*** (0.000)	0.005*** (0.001)	0.003*** (0.001)
2019 × EU mobile	0.002 (0.002)	0.001 (0.002)	0.003 (0.002)
2019 × Extra EU	0.001 (0.001)	0.003 (0.002)	-0.003 (0.002)
2020 × EU mobile	0.007*** (0.002)	0.006** (0.003)	0.007** (0.003)
2020 × Extra EU	0.007*** (0.002)	0.007*** (0.003)	0.006** (0.003)
NUTS-2 FE	✓	✓	✓
Age FE	✓	✓	✓
Education dummies	✓	✓	✓
Occ. FE	✓	✓	✓
Obs.	2,759,337	1,808,692	950,645
R^2	0.014	0.014	0.015

Note: In this table, we report the results for estimating equation (2) on the full sample (column 1) and then separately on the sub-samples of non-key workers (column 2) and key workers (column 3). The outcome variable is the probability of job loss and we estimate this regression equation with a Linear Probability Model (OLS). All regressions are weighted using EU-LFS sampling weights. NUTS-2 fixed effects refer to the job held the 50 year before the interview. Robust standard errors in parentheses: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Sample: EU-LFS data for 2018, 2019 and 2020.