Supplementary material for the paper ‘The Working Class and Early Retirement in Denmark: Individual Push Factors’, Ageing & Society

Table S1:*ICD-10 codes of diseases included in the study for constructing health of partner*

|  |  |
| --- | --- |
| Diseases | International Classification of Diseases (ICD-10) codes:  |
| Diabetes | E10-E14, H360 |
| Cancer | C00-C96, D00-D48 |
| Heart diseases | I00-I79 |
| Dementia | F00-F09 |
| Depression | F32-F38 |
| Musculoskeletal diseases | M069, M159, M160, M161A, M 199, M170, M255, M420, M431, M478, M509, M501, M503, M510, M511, M513, M519, M531, M544, M545, M626, M653, M659, M704, M720, M750, M751, M754, M755, M759, M770, M771, M796 |

Table S2: *Discrete-time logistic models. Decomposition of the effect of social class on early retirement timing, all pathways for men and women. Logit coefficients, robust standard errors in parentheses, and odds ratios.*

|  |  |  |
| --- | --- | --- |
|  | *Men* | *Women* |
| *Social class* *(ref. Professionals)* | *Routine, non-manual workers* | *Skilled manual workers* | *Unskilled manual workers* | *Routine, non-manual workers* | *Skilled manual workers* | *Unskilled manual workers* |
|  | Logit | OR | Logit | OR | Logit | OR | Logit | OR | Logit | OR | Logit | OR |
| Reduced model | 0.265 (0.189) | 1.303 | 0.495\*\*\*(0.138) | 1.641 | 0.469\*\*\* (0.138) | 1.599 | 0.361\*\*\*(0.114) | 1.434 | 0.617\*\*(0.281) | 1.853 | 0.819\*\*\* (0.141) | 2.268 |
| Full model  | 0.108 (0.191) | 1.114 | 0.220 (0.147) | 1.246 | 0.079 (0.157) | 1.083 | 0.188(0.115) | 1.206 | 0.309(0.282) | 1.363 | 0.403\*\*\*0.150 | 1.496 |
| Indirect effect | 0.156\*\*\* (0.033) | 1.169 | 0.275\*\*\* (0.055) | 1.317 | 0.390\*\*\*(0.066) | 1.477 | 0.173\*\*\*(0.038) | 1.189 | 0.307\*\*\*(0.050) | 1.360 | 0.416\*\*\*(0.066) | 1.517 |
| *Through:*  |  | % |  | % |  | % |  | % |  | % |  | % |
| Poor health (diagnoses) | 0.034\*\*\*(0.011) | 12.66 | 0.022\*\*\*(0.008) | 4.41 | 0.052\*\*\*(0.015) | 11.17 | 0.007\*(0.004) | 1.84 | 0.049\*(0.028) | 7.90 | 0.016\*\*(0.007) | 1.92 |
| Previous spells of unemployment  | 0.032\*\*\*(0.010) | 11.92 | 0.060\*\*\*(0.015) | 12.24 | 0.102\*\*\* (0.024) | 21.73 | 0.035\*\*\*(0.010) | 9.61 | 0.048\*\*\*(0.016) | 7.81 | 0.083\*\*\*(0.024) | 10.19 |
| Overly physical demands | 0.048\*\*\*(0.015) | 18.01 | 0.156\*\*\* (0.047) | 31.42 | 0.169\*\*\*(0.051) | 36.11 | 0.107\*\*\*(0.021) | 29.60 | 0.166\*\*\*(0.035) | 26.88 | 0.269\*\*\*(0.051) | 32.85 |
| Low decision latitude  | 0.037\*(0.019) | 14.06 | 0.027\*(0.014) | 5.37 | 0.053\*\* (0.027) | 11.37 | 0.009(0.006) | 2.58 | 0.012(0.009) | 2.00 | 0.025\*(0.015) | 3.04 |
| Partner with poor health (retired) | 0.005(0.004) | 1.83 | 0.009(0.006) | 1.81 | 0.012\*(0.007) | 2.60 | 0.016\*\*\*(0.006) | 4.43 | 0.039\*\*\*(0.014) | 6.31 | 0.022\*\*\*(0.007) | 2.70 |
| Partner with poor health (not retired)  | 0.002(0.005) | 0.62 | 0.002(0.006) | 0.36 | 0.001(0.002) | 0.12 | -0.000(0.001) | -0.13 | -0.007(0.009) | -1.07 | 0.001(0.002) | 0.14 |
| *Total per cent explained by push factors*  |  | *59.09* |  | *55.59* |  | *83.09* |  | *47.93* |  | *49.82* |  | *50.85* |
| Observations (years) |  |  | 8636 |  |  |  |  |  |  | 8887 |  |  |

Note: Control variables are included in all models. \*p<0.10 \*\*p<0.05 \*\*\*p<0.01.

Table S3: *Discrete-time logistic models. Decomposition of the effect of social class on early retirement timing, separate pathways for men and women. Logit coefficients, robust standard errors in parentheses, and odds ratios*

|  |  |  |
| --- | --- | --- |
|  | *Men* | *Women* |
| *Social class* *(ref. Professionals)* | *Routine, non-manual workers* | *Skilled manual workers* | *Unskilled manual workers* | *Routine, non-manual workers* | *Skilled manual workers* | *Unskilled manual workers* |
| **Disability Pension and Social Security** |
|  | Logit | OR | Logit | OR | Logit | OR | Logit | OR | Logit | OR | Logit | OR |
| Reduced model | 0.713\*(0.430) | 2.040 | 0.603\*(0.338) | 1.828 |  0.718\*\*(0.326) | 2.050 | 0.534\*\*(0.271) | 1.707 | 0.171(0.732) | 1.187 | 1.322\*\*\*(0.284) | 3.750 |
| Full model  | 0.478(0.426) | 1.612 | 0.304(0.339) | 1.355 | 0.247(0.358) | 1.281 | 0.355(0.273) | 1.427 | -0.192(0.726) | 0.826 | 0.875\*\*\*(0.307) | 2.340 |
| Indirect effect | 0.235\*\*\*(0.065) | 1.265 | 0.299\*\*\*(0.108) | 1.349 | 0.471\*\*\*(0.134) | 1.601 | 0.179\*\*(0.071) | 1.196 | 0.363\*\*\*(0.094) | 1.437 | 0.446\*\*\*(0.114) | 1.563 |
| *Through:*  |  | % |  | % |  | % |  | % |  | % |  | % |
| Poor health (diagnoses) | 0.101\*\*\*(0.031) | 14.18 | 0.659\*\*\*(0.021) | 10.93 | 0.158\*\*\*(0.039) | 22.03 | 0.022\*(0.012) | 4.07 | 0.160\*\*\*(0.047) | 93.51 | 0.052\*\*\*(0.018) | 3.90 |
| Previous spells of unemployment  | 0.040\*\*\* (0.015) | 5.56 | 0.076\*\*\*(0.024) | 12.63 |  0.128\*\*\*(0.040) | 17.84 | 0.033\*\*(0.016) | 6.15 | 0.046\*(0.024) | 26.76 | 0.079\*\* (0.039) | 6.00 |
| Overly physical demands | 0.033 (0.029) | 4.56 | 0.106(0.094) | 17.62 | 0.116(0.102) | 16.10 | 0.094\*\*(0.038) | 17.59 | 0.146\*\*(0.060) | 85.45 | 0.237\*\* (0.095) | 17.93 |
| Low decision latitude  | 0.044(0.039) | 6.10 | 0.031(0.028) | 5.15 | 0.062(0.056) | 8.68 | 0.017(0.011) | 3.20 | 0.023(0.018) | 13.22 | 0.046(0.029) | 3.46 |
| Partner with poor health (retired) | 0.000(0.008) | 0.01 | 0.000(0.015) | 0.02 | 0.000 (0.021) | 0.02 | 0.017\*(0.009) | 3.20 | 0.042\*(0.022) | 24.35 | 0.024\*\*(0.012) | 1.79 |
| Partner with poor health (not retired)  | 0.018(0.016) | 2.58 | 0.020(0.017) | 3.31 | 0.006(0.007) | 0.89 | -0.004(0.008) | -0.69 | -0.053(0.033) | -31.07 | 0.009(0.010) | 0.69 |
| *Total per cent explained by push factors*  |  | *33.00* |  | *49.65* |  | *65.56* |  | *33.51* |  | *212.23* |  | *33.77* |
| Observations (years) |  |  | 8636 |  |  |  |  |  |  | 8887 |  |  |
| **Early Retirement Scheme** |
|  | Logit | OR | Logit | OR | Logit | OR | Logit | OR | Logit | OR | Logit | OR |
| Reduced model | 0.182 (0.214) | 1.199 | 0.444\*\*\*(0.157) | 1.559 | 0.690\*\*\*(0.162) | 1.994 | 0.396\*\*\*(0.133) | 1.487 | 0.861\*\*\*(0.331) | 2.365 | 0.543\*\*\*(0.166) | 1.721 |
| Full model  | 0.045(0.217) | 1.046 | 0.202(0.170) | 1.224 | 0.332\*(0.183) | 1.393 | 0.242\*(0.136) | 1.274 | 0.537(0.336) | 1.710 | 0.205(0.176) | 1.227 |
| Indirect effect | 0.036\*\*\*(0.047) | 1.146 | 0.242\*\*\*(0.067) | 1.274 | 0.358\*\*\*(0.085) | 1.431 | 0.155\*\*(0.072) | 1.167 | 0.324\*\*\*(0.087) | 1.383 | 0.338\*\*\*(0.087) | 1.402 |
| *Through:*  |  | % |  | % |  | % |  | % |  | % |  | % |
| Poor health (diagnoses) | 0.027\*(0.016) | 14.58 | 0.024\*(0.013) | 5.45 | 0.048\*\*(0.022) | 6.97 | 0.003(0.004) | 0.73 | 0.005(0.012) | 0.55 | 0.004 (0.006) | 0.77 |
| Previous spells of unemployment  | 0.029\*(0.015) | 15.68 | 0.056\*\*\*(0.018) | 12.70 | 0.101\*\*\*(0.029) | 14.57 | 0.043\*\*\*(0.016) | 10.75 | 0.078\*\*(0.038) | 9.04 | 0.078\*\*\*(0.028) | 14.40 |
| Overly physical demands | 0.028\*(0.015) | 15.56 | 0.108\*\*(0.050) | 24.42 | 0.137\*\*(0.063) | 19.80 | 0.086\*\*\*(0.021) | 21.64 | 0.193\*\*\*(0.060) | 22.44 | 0.216\*\*\*(0.050) | 39.82 |
| Low decision latitude  | 0.042\*(0.023) | 23.24 | 0.042\*(0.022) | 9.37 | 0.060\*\*(0.030) | 8.66 | -0.001(0.003) | -0.32 | 0.003(0.007) | -0.37 | 0.002(0.005) | 0.45 |
| Partner with poor health (retired) | 0.008 (0.009) | 4.56 | 0.009 (0.008) | 1.92 | 0.016(0.015) | 2.33 | 0.024\*\*(0.012) | 6.18 | 0.051(0.036) | 5.97 | 0.037\*\*(0.016) | 6.83 |
| Partner with poor health (not retired)  | 0.003(0.006) | 1.39 | 0.003 (0.007) | 0.62 | -0.003(0.007) | -0.40 | 0.000(0.003) | 0.02 | 0.000 (0.013) | 0.05 | -0.001(0.003) | -0.02 |
| *Total per cent explained by push factors*  |  | *75.01* |  | *54.48* |  | *51.93* |  | *39.01* |  | *37.68* |  | *62.24* |
| Observations (years) |  |  | 1962 |  |  |  |  |  | 2009 |  |  |  |

Note: Control variables are included in all models. \*p<0.10 \*\*p<0.05 \*\*\*p<0.01.

Table S4: *Discrete-time logistic models predicting early retirement. Logit coefficients and robust standard errors. Full models.*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **All pathways** | **Disability Pension / Social Security** | **The Early Retirement Scheme** |
|  | **Men**  | **Women** | **Men** | **Women** | **Men** | **Women** |
|  | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** | **Logit** | **SE** |
| Professionals (ref.)Routine, non-manualSkilled manual workersUnskilled manual workersPoor healthPrevious spells of unemploymentOverly physical demandsLow decision latitudePartner in poor health (retired)Partner in poor health (employed)Cohort: 1950 (ref.1945)Age (ref.: 52-53)5455565758596061626364 | 0.2960.514\*\*\*0.496\*\*\*-0.250-0.457-0.779-0.332-0.5500.0140.2783.030\*\*\*2.683\*\*\*3.558\*\*\*3.243\*\*\*3.282\*\*\* | (0.189)(0.139)(0.138)(0.109)(0.569)(0.677)(0.567)(0.614)(0.517)(0.487)(0.368)(0.377)(0.367)(0.376)(0.380) | 0.1650.2190.0690.331\*\*\*0.000\*\*\*0.155\*\*\*0.083\*\*0.2330.027-0.235-0.457-0.779-0.332-0.5500.0140.2783.030\*\*\*2.683\*\*\*3.558\*\*\*3.243\*\*\*3.282\*\*\* | (0.191)(0.149)(0.156)(0.081)(0.000)(0.051)(0.038)(0.148)0.139(0.110)(0.569)(0.677)(0.567)(0.614)(0.517)(0.487)(0.368)(0.377)(0.367)(0.376)(0.380) | 0.631\*\*\*0.595\*\*0.817\*\*\*-0.175\*0.731\*-0.038-0.1870.1160.2500.1393.761\*\*\*3.237\*\*\*3.762\*\*\*3.655\*\*\*3.438\*\*\* | (0.115)(0.289)(0.141)(0.098)(0.407)(0.504)(0.525)(0.485)(0.472)(0.486)(0.339)(0.349)(0.346)(0.353)(0.365) | 0.1840.3420.364\*\*0.377\*\*\*0.000\*\*\*0.166\*\*\*0.0540.568\*\*\*-0.074-0.206\*\*0.730\*-0.038-0.2430.0540.1770.0473.669\*\*\*3.185\*\*\*3.708\*\*\*3.612\*\*\*3.409\*\*\* | (0.117)(0.291)(0.150)(0.068)(0.000)(0.039)(0.039)(0.129)(0.146)(0.098)(0.407)(0.504)(0.525)(0.485)(0.472)(0.487)(0.340)(0.350)(0.347)(0.354)(0.365) | 0.7130.5530.677\*-0.087-0.435-0.732-0.225-0.4280.0140.3580.492-0.5500.5010.2361.116\*\* | (0.435)(0.344)(0.331)(0.268)(0.566)(0.684)(0.572)(0.618)(0.539)(0.501)(0.522)(0.795)(0.575)(0.693)(0.557) | 0.5700.1940.0811.219\*\*\*0.000\*\*0.0510.080-0.090-0.387-0.114-0.410-0.705-0.420-0.596-0.1470.2170.327-0.6520.4070.1711.051\* | (0.438)(0.356)(0.370)(0.151)(0.000)(0.101)(0.074)(0.444)(0.420)(0.274)(0.565)(0.683)(0.565)(0.622)(0.539)(0.502)(0.512)(0.788)(0.577)(0.698)(0.572) | 0.634\*\*0.1441.383\*\*\*0.1850.812\*-0.009-1.1590.0300.3400.0941.008\*\*0.928\*0.4931.548\*\*\*1.436\*\*\* | (0.280)(0.770)(0.297)(0.388)(0.416)(0.516)(0.536)(0.510)(0.488)(0.514)(0.438)(0.489)(0.566)(0.478)(0.528) | 0.452-0.0240.859\*\*\*1.181\*\*\*0.0000.0260.0560.705\*\*-0.795\*0.1410.832\*0.027-0.300-0.1000.206-0.0560.862\*0.829\*0.3901.444\*\*\*1.383\*\*\* | (0.280)(0.766)(0.322)(0.108)(0.000)(0.076)(0.075)(0.283)(0.421)(0.214)(0.416)(0.515)(0.536)(0.508)(0.487)(0.519)(0.442)(0.491)(0.557)(0.482)(0.528) | 0.1780.438\*\*\*0.686\*\*\*-0.530\*\*\*(ref.)-0.329\*0.626\*\*\*0.348\*0.347\* | (0.213)(0.157)(0.161)(0.126)(0.189)(0.168)(0.193)(0.205) | 0.920.2110.344\*0.1300.000\*\*\*0.130\*\*0.100\*\*0.200-0.021-0.471\*\*\*(ref.)-0.2980.655\*\*\*0.375\*0.375\* | (0.216)(0.170)(0.182)(0.086)(0.000)(0.061)(0.044)(0.164)(0.154)(0.129)(0.189)(0.168)(0.194)(0.205) | 0.396\*\*\*0.858\*\*0.542\*\*\*-0.202\*\*(ref.)-0.604\*\*\*0.054-0.161-0.481\*\* | (0.133)(0.335)(0.166)(0.112)(0.159)(0.150)(0.174)(0.209) | 0.245\*0.5410.2100.0000.000\*\*\*0.206\*\*\*0.0320.494\*\*\*0.017-0.224\*\*(ref.)-0.570\*\*\*0.084-0.111-0.425\*\* | (0.137)(0.339)(0.176)(0.078)(0.000)(0.046)(0.439)(0.142)(0.64)(0.113)(0.159)(0.150)(0.174)(0.209) |

Note: \*p<0.10 \*\*p<0.05 \*\*\*p<0.01.