**Supplementary Table S1:** The first stage estimates and relevance restriction IV test for Table 3

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mental health | | | | | | Vitality | | | | | |
| Age group | 25-49 | | | 50-70 | | | 25-49 | | | 50-70 | | |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| VARIABLES | Health  eqn | Hours  eqn | Wage  eqn | Health  eqn | Hours  eqn | Wage  eqn | Health  eqn | Hours  eqn | Wage  eqn | Health  eqn | Hours  eqn | Wage  eqn |
| Mental health | 0.542\*\*\* | 0.004 | 0.0001 | 0.557\*\*\* | 0.002 | 0.0001 |  |  |  |  |  |  |
| (lag) | (0.007) | (0.003) | (0.0001) | (0.011) | (0.005) | (0.0003) |  |  |  |  |  |  |
| Vitality |  |  |  |  |  |  | 0.557\*\*\* | 0.015\*\*\* | 0.0001 | 0.563\*\*\* | 0.003 | 0.0001 |
| (lag) |  |  |  |  |  |  | (0.006) | (0.003) | (0.0001) | (0.010) | (0.004) | (0.0002) |
| Partner’s working | 0.376\* | -0.399\*\*\* | -0.020\*\*\* | 0.015 | 0.112 | -0.016\* | 0.147 | -0.404\*\*\* | -0.020\*\*\* | -0.042 | 0.114 | -0.016\* |
| (yes=1) | (0.219) | (0.126) | (0.005) | (0.256) | (0.160) | (0.008) | (0.258) | (0.126) | (0.005) | (0.296) | (0.160) | (0.008) |
| *Partner’s education (reference group: Postgraduates)* | | | |  |  |  |  |  |  |  |  |  |
| Grad diploma | 0.614\* | 0.160 | -0.020\* | 0.665 | 0.092 | -0.007 | 0.009 | 0.149 | -0.020\* | 0.417 | 0.093 | -0.007 |
|  | (0.363) | (0.219) | (0.011) | (0.530) | (0.324) | (0.016) | (0.444) | (0.219) | (0.011) | (0.626) | (0.324) | (0.016) |
| Bach/honours | 0.419 | 0.155 | -0.012 | 0.302 | -0.174 | -0.004 | -0.100 | 0.152 | -0.012 | -0.044 | -0.173 | -0.004 |
|  | (0.309) | (0.189) | (0.009) | (0.492) | (0.301) | (0.015) | (0.378) | (0.189) | (0.009) | (0.583) | (0.301) | (0.015) |
| Diploma | 0.407 | 0.308 | -0.017\* | 0.647 | 0.103 | -0.016 | 0.026 | 0.299 | -0.017\* | -0.071 | 0.106 | -0.016 |
|  | (0.357) | (0.214) | (0.010) | (0.504) | (0.313) | (0.016) | (0.432) | (0.214) | (0.010) | (0.592) | (0.313) | (0.016) |
| Cert III/IV | 0.434 | 0.296 | -0.032\*\*\* | 0.062 | -0.153 | 0.001 | 0.344 | 0.284 | -0.032\*\*\* | 0.111 | -0.155 | 0.000 |
|  | (0.328) | (0.199) | (0.009) | (0.484) | (0.303) | (0.015) | (0.396) | (0.199) | (0.009) | (0.564) | (0.303) | (0.015) |
| Year 12 | 0.553 | 0.267 | -0.030\*\*\* | -0.126 | 0.263 | -0.005 | 0.171 | 0.257 | -0.030\*\*\* | -0.060 | 0.263 | -0.005 |
|  | (0.350) | (0.212) | (0.010) | (0.547) | (0.334) | (0.017) | (0.423) | (0.212) | (0.010) | (0.633) | (0.334) | (0.017) |
| Year 11 or lower | 0.137 | 0.612\*\*\* | -0.029\*\*\* | 0.308 | -0.015 | -0.006 | -0.110 | 0.605\*\*\* | -0.029\*\*\* | -0.225 | -0.014 | -0.006 |
|  | (0.359) | (0.215) | (0.010) | (0.486) | (0.302) | (0.015) | (0.430) | (0.215) | (0.010) | (0.568) | (0.302) | (0.015) |
| Work flexibility | 0.011\*\*\* | -0.016\*\*\* | 0.001\*\*\* | 0.008\* | -0.007\*\* | 0.001\*\*\* | 0.024\*\*\* | -0.016\*\*\* | 0.001\*\*\* | 0.010\*\* | -0.007\*\* | 0.001\*\*\* |
| index | (0.003) | (0.002) | (0.000) | (0.004) | (0.003) | (0.000) | (0.004) | (0.002) | (0.000) | (0.005) | (0.003) | (0.000) |
| Work intensity | -0.037\*\*\* | 0.049\*\*\* | -0.000\*\* | -0.040\*\*\* | 0.044\*\*\* | -0.000 | -0.061\*\*\* | 0.050\*\*\* | -0.000\*\* | -0.031\*\*\* | 0.044\*\*\* | -0.000 |
| index | (0.004) | (0.003) | (0.000) | (0.006) | (0.003) | (0.000) | (0.005) | (0.003) | (0.000) | (0.007) | (0.003) | (0.000) |
| Marital status | 5.148 | -3.038 | -0.041 | 26.357\*\*\* | 1.306 | -0.030 | 4.275 | -3.032 | -0.041 | 17.157\*\* | 1.287 | -0.032 |
| (married=1) | (3.885) | (2.953) | (0.049) | (1.909) | (2.798) | (0.081) | (3.544) | (2.936) | (0.049) | (7.605) | (2.779) | (0.083) |
| Financial distress | -0.079\*\*\* | 0.005 | -0.001\*\*\* | -0.082\*\*\* | 0.003 | -0.001\*\*\* | -0.090\*\*\* | 0.006 | -0.001\*\*\* | -0.064\*\*\* | 0.003 | -0.001\*\*\* |
| index | (0.008) | (0.005) | (0.000) | (0.016) | (0.009) | (0.000) | (0.008) | (0.005) | (0.000) | (0.019) | (0.009) | (0.000) |
| Non-wage income | 0.001 | -0.005\*\*\* | 0.000 | 0.001 | -0.005\*\*\* | 0.000\*\*\* | -0.004 | -0.005\*\*\* | 0.000 | 0.002 | -0.005\*\*\* | 0.000\*\*\* |
| (in $1000) | (0.003) | (0.002) | (0.000) | (0.002) | (0.002) | (0.000) | (0.003) | (0.002) | (0.000) | (0.002) | (0.002) | (0.000) |
| *Employment type (reference group: fixed term)* | | | |  |  |  |  |  |  |  |  |  |
| Casual | -0.092 | -4.667\*\*\* | 0.005 | 0.496 | -3.549\*\*\* | 0.009 | 0.434 | -4.665\*\*\* | 0.005 | 0.371 | -3.552\*\*\* | 0.008 |
|  | (0.346) | (0.250) | (0.010) | (0.470) | (0.359) | (0.017) | (0.398) | (0.250) | (0.010) | (0.545) | (0.359) | (0.017) |
| Permanent | 0.245 | -0.317\*\* | -0.023\*\*\* | 0.127 | 0.305 | -0.016 | 0.185 | -0.320\*\* | -0.023\*\*\* | 0.074 | 0.303 | -0.016 |
|  | (0.246) | (0.156) | (0.006) | (0.373) | (0.250) | (0.011) | (0.290) | (0.156) | (0.006) | (0.432) | (0.250) | (0.011) |
| Work experience | 0.006 | -0.025\*\*\* | 0.002\*\*\* | 0.158\*\*\* | -0.130\*\*\* | -0.001 | 0.006 | -0.025\*\*\* | 0.002\*\*\* | 0.121\*\*\* | -0.130\*\*\* | -0.001 |
|  | (0.011) | (0.007) | (0.000) | (0.022) | (0.014) | (0.001) | (0.013) | (0.007) | (0.000) | (0.027) | (0.014) | (0.001) |
| Sex | -0.228 | 1.526 | 0.173\* | -26.363\*\*\* | -0.630 | 0.105 | 1.160 | 1.445 | 0.173\* | -17.369\*\* | -0.622 | 0.105 |
| (men=1) | (6.425) | (3.666) | (0.097) | (3.970) | (3.449) | (0.095) | (5.996) | (3.653) | (0.097) | (8.128) | (3.433) | (0.097) |
| Unpaid domestic | -0.004 | -0.070\*\*\* | 0.001\*\*\* | -0.020\*\*\* | -0.036\*\*\* | 0.000 | -0.024\*\*\* | -0.069\*\*\* | 0.001\*\*\* | -0.023\*\*\* | -0.036\*\*\* | 0.000 |
| time | (0.004) | (0.003) | (0.000) | (0.007) | (0.004) | (0.000) | (0.005) | (0.003) | (0.000) | (0.008) | (0.004) | (0.000) |
| General health (lag) | 0.102\*\*\* | 0.003 | 0.000\*\* | 0.089\*\*\* | 0.006 | 0.000\* | 0.134\*\*\* | -0.004 | 0.000\*\* | 0.146\*\*\* | 0.005 | 0.000 |
|  | (0.005) | (0.003) | (0.000) | (0.007) | (0.004) | (0.000) | (0.006) | (0.003) | (0.000) | (0.009) | (0.004) | (0.000) |
| *Smoking (reference group: Never smoke)* | | |  |  |  |  |  |  |  |  |  |  |
| Past smoker | 0.166 | 0.097 | 0.000 | -0.232 | 0.028 | 0.005 | 0.330 | 0.091 | 0.000 | -0.166 | 0.027 | 0.005 |
|  | (0.174) | (0.103) | (0.004) | (0.215) | (0.135) | (0.007) | (0.205) | (0.103) | (0.004) | (0.255) | (0.135) | (0.007) |
| Current smoker | 0.099 | 0.491\*\*\* | -0.017\*\*\* | -0.677\* | 0.394\* | -0.014 | 0.563\*\* | 0.466\*\*\* | -0.017\*\*\* | -0.597 | 0.394\* | -0.014 |
|  | (0.227) | (0.131) | (0.005) | (0.351) | (0.210) | (0.009) | (0.253) | (0.132) | (0.005) | (0.402) | (0.210) | (0.009) |
| *Alcohol drink (reference group: never drink)* | | | |  |  |  |  |  |  |  |  |  |
| Rarely/no longer | -0.025 | -0.466\*\* | 0.011 | -0.474 | 0.260 | 0.037\*\* | -0.828\* | -0.453\*\* | 0.011 | -0.999\* | 0.260 | 0.037\*\* |
|  | (0.381) | (0.229) | (0.010) | (0.523) | (0.308) | (0.015) | (0.444) | (0.228) | (0.010) | (0.598) | (0.308) | (0.015) |
| Moderate | -0.063 | -0.116 | 0.024\*\* | 0.020 | 0.022 | 0.047\*\*\* | 0.075 | -0.105 | 0.024\*\* | 0.221 | 0.020 | 0.047\*\*\* |
|  | (0.373) | (0.225) | (0.010) | (0.499) | (0.301) | (0.015) | (0.435) | (0.225) | (0.010) | (0.577) | (0.301) | (0.015) |
| Heavy | -0.590 | 0.239 | 0.020\* | -1.225\* | -0.180 | 0.060\*\*\* | -0.253 | 0.241 | 0.020\* | -0.302 | -0.185 | 0.060\*\*\* |
|  | (0.455) | (0.265) | (0.011) | (0.655) | (0.397) | (0.018) | (0.521) | (0.265) | (0.011) | (0.741) | (0.397) | (0.018) |
| Physical activity | 1.496\*\*\* | 0.371\*\* | -0.016\*\*\* | 1.181\*\*\* | 0.231 | -0.008 | 2.832\*\*\* | 0.349\*\* | -0.016\*\*\* | 2.422\*\*\* | 0.225 | -0.009 |
| (lag) (high=1) | (0.249) | (0.151) | (0.006) | (0.293) | (0.210) | (0.011) | (0.292) | (0.151) | (0.006) | (0.370) | (0.210) | (0.011) |
| Work hours (lag) | 0.014\* | 0.591\*\*\* | 0.004\*\*\* | 0.019\* | 0.720\*\*\* | 0.003\*\*\* | 0.020\*\* | 0.592\*\*\* | 0.004\*\*\* | 0.017 | 0.720\*\*\* | 0.003\*\*\* |
|  | (0.008) | (0.006) | (0.000) | (0.010) | (0.009) | (0.000) | (0.009) | (0.006) | (0.000) | (0.011) | (0.009) | (0.000) |
| Log wage (lag) | 0.100 | 2.091\*\*\* | 0.609\*\*\* | 0.681\*\*\* | 2.059\*\*\* | 0.621\*\*\* | -0.175 | 2.086\*\*\* | 0.609\*\*\* | 0.648\*\* | 2.058\*\*\* | 0.621\*\*\* |
|  | (0.198) | (0.141) | (0.010) | (0.237) | (0.196) | (0.016) | (0.233) | (0.141) | (0.010) | (0.283) | (0.196) | (0.016) |
| *Education (reference group: Postgraduates)* | | | |  |  |  |  |  |  |  |  |  |
| Grad diploma | 0.448 | -0.303 | -0.012 | 0.474 | -0.200 | -0.013 | 0.377 | -0.308 | -0.012 | 0.423 | -0.200 | -0.013 |
|  | (0.342) | (0.213) | (0.009) | (0.498) | (0.321) | (0.015) | (0.414) | (0.213) | (0.009) | (0.601) | (0.321) | (0.015) |
| Bachelor/honours | 0.019 | -0.391\*\* | -0.022\*\*\* | -0.279 | 0.145 | -0.018 | 0.175 | -0.383\*\* | -0.022\*\*\* | 0.122 | 0.145 | -0.018 |
|  | (0.301) | (0.181) | (0.008) | (0.480) | (0.309) | (0.014) | (0.361) | (0.181) | (0.008) | (0.567) | (0.308) | (0.014) |
| Diploma | -0.139 | -0.034 | -0.066\*\*\* | -0.113 | 0.646\*\* | -0.050\*\*\* | -0.080 | -0.021 | -0.066\*\*\* | 0.171 | 0.645\*\* | -0.050\*\*\* |
|  | (0.372) | (0.215) | (0.010) | (0.505) | (0.328) | (0.015) | (0.430) | (0.215) | (0.010) | (0.593) | (0.328) | (0.015) |
| Cert II/IV | 0.535 | 0.122 | -0.098\*\*\* | -0.003 | 0.817\*\* | -0.073\*\*\* | 0.411 | 0.114 | -0.098\*\*\* | -0.022 | 0.817\*\* | -0.073\*\*\* |
|  | (0.353) | (0.208) | (0.009) | (0.519) | (0.327) | (0.015) | (0.419) | (0.208) | (0.009) | (0.601) | (0.327) | (0.015) |
| Year 12 | 0.585 | 0.064 | -0.101\*\*\* | 0.261 | 0.718\*\* | -0.043\*\* | 0.381 | 0.065 | -0.101\*\*\* | 0.863 | 0.715\*\* | -0.044\*\* |
|  | (0.364) | (0.218) | (0.010) | (0.557) | (0.354) | (0.017) | (0.438) | (0.217) | (0.009) | (0.673) | (0.354) | (0.017) |
| Year 11 or lower | -0.070 | -0.063 | -0.122\*\*\* | -0.332 | 1.240\*\*\* | -0.091\*\*\* | 0.065 | -0.059 | -0.122\*\*\* | 0.132 | 1.240\*\*\* | -0.091\*\*\* |
|  | (0.401) | (0.236) | (0.011) | (0.559) | (0.361) | (0.017) | (0.471) | (0.236) | (0.011) | (0.656) | (0.361) | (0.017) |
| Urban | -0.167 | -0.219 | 0.024\*\*\* | -0.198 | -0.398\*\* | 0.020\*\* | -0.078 | -0.216 | 0.024\*\*\* | 0.023 | -0.397\*\* | 0.021\*\* |
| (yes=1) | (0.220) | (0.136) | (0.006) | (0.273) | (0.186) | (0.008) | (0.262) | (0.135) | (0.006) | (0.326) | (0.186) | (0.008) |
| Constant | 23.59\*\*\* | 13.84\*\*\* | 1.08\*\*\* | 22.87\*\*\* | 6.36\*\*\* | 1.19\*\*\* | 15.34\*\*\* | 13.76\*\*\* | 1.08\*\*\* | 12.86\*\*\* | 6.38\*\*\* | 1.19\*\*\* |
|  | (5.269) | (2.294) | (0.093) | (3.939) | (2.311) | (0.086) | (5.025) | (2.290) | (0.093) | (3.527) | (2.296) | (0.086) |
| **F-statistics** | 163.9 | 604.0 | 347.1 | 92.6 | 421.2 | 175.9 | 274.0 | 603.8 | 347.1 | 143.3 | 421.1 | 176.0 |
| *Test for excluded instruments jointly  equal zero in the first stage F-value [p-value]* | *573.4\*\* (0.000)* | *23.00\*\* (0.000)* | *392.5\*\* (0.000)* | *428.4\*\* (0.000)* | *11.81\*\* (0.000)* | *160.44\*\* (0.000)* | *733.9\*\* (0.000)* | *24.7\*\* (0.000)* | *391.8\*\* (0.000)* | *301.8\*\* (0.000)* | *12.0\*\* (0.000)* | *162.0\*\* (0.000)* |
| Observations | 25,904 | 25,937 | 25,840 | 12,135 | 12,146 | 12,107 | 25,900 | 25,935 | 25,838 | 12,135 | 12,146 | 12,107 |
| R-squared | 0.392 | 0.669 | 0.579 | 0.433 | 0.735 | 0.570 | 0.450 | 0.669 | 0.579 | 0.493 | 0.735 | 0.570 |

*Notes:* Bootstrapped standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; Models controlled further for ethnicity, occupation, state and year dummies. Note that due to 3SLS model set up, even we selected different instruments for different equations, the first stage of 3SLS treats all excluded instruments as a common set of instruments for all three equations. We reported estimates for only two age groups: 25-49 and 50-70, but not for age groups 50-59 and 60-70 as there are too many columns to fit in this table. We used 3-decimals in this table to fit all columns in one table. ‘*eqn*’=equation.

**Supplementary Table S2:** Full health equation estimates for Table 3 (the second stage estimates)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mental health | | | | Vitality | | | |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Age group | 25-49 | 50-70 | 50-59 | 60-70 | 25-49 | 50-70 | 50-59 | 60-70 |
| Tipping point | 39.4 | 39.8 | 40.9 | 38.4 | 38.8 | 39.0 | 40 | 36 |
| Mental health (lag) | 0.5368\*\*\* | 0.5466\*\*\* | 0.5548\*\*\* | 0.4994\*\*\* |  |  |  |  |
|  | (0.0072) | (0.0113) | (0.0145) | (0.0280) |  |  |  |  |
| Vitality (lag) |  |  |  |  | 0.5436\*\*\* | 0.5524\*\*\* | 0.5565\*\*\* | 0.5155\*\*\* |
|  |  |  |  |  | (0.0079) | (0.0109) | (0.0105) | (0.0228) |
| Weekly work hours | 1.2063\*\*\* | 0.6998\*\*\* | 0.5977\*\* | 0.4764 | 1.7934\*\*\* | 0.9740\*\*\* | 0.8334\*\*\* | 0.6830\* |
|  | (0.4225) | (0.1757) | (0.2545) | (0.3471) | (0.3278) | (0.1998) | (0.2975) | (0.3999) |
| Weekly work hours-squared | -0.0153\*\*\* | -0.0088\*\*\* | -0.0073\*\* | -0.0062 | -0.0231\*\*\* | -0.0125\*\*\* | -0.0104\*\*\* | -0.0095\* |
|  | (0.0055) | (0.0023) | (0.0033) | (0.0049) | (0.0042) | (0.0027) | (0.0038) | (0.0055) |
| Wage in log | 1.9794\*\* | 3.8324\*\*\* | 4.5879\*\*\* | 2.7981\*\* | 0.5546 | 4.4149\*\*\* | 5.0165\*\*\* | 4.3997\*\*\* |
|  | (0.8283) | (0.8202) | (1.0895) | (1.3728) | (0.8585) | (0.7986) | (1.3656) | (1.6630) |
| Work flexibility index | 0.0007 | -0.0036 | -0.0045 | 0.0008 | 0.0120\*\* | -0.0007 | -0.0005 | 0.0021 |
|  | (0.0040) | (0.0035) | (0.0056) | (0.0079) | (0.0053) | (0.0049) | (0.0081) | (0.0127) |
| Work intensity index | -0.0399\*\*\* | -0.0392\*\*\* | -0.0457\*\*\* | -0.0299\*\* | -0.0586\*\*\* | -0.0398\*\*\* | -0.0433\*\*\* | -0.0251\*\* |
|  | (0.0069) | (0.0056) | (0.0076) | (0.0117) | (0.0066) | (0.0060) | (0.0073) | (0.0121) |
| Marital status | 4.9849 | 4.4679 | 4.3797 | 5.7833\*\*\* | 4.2925 | 2.5761 | 2.4126 | 6.5930\*\*\* |
| (married/de facto=1) | (3.2586) | (3.8597) | (4.1125) | (2.1180) | (3.1294) | (3.2918) | (3.1661) | (2.3452) |
| *Employment type (reference group: fixed term)* | | |  |  |  |  |  |  |
| Casual | 4.1850\*\*\* | 2.9541\*\*\* | 2.1491\*\*\* | 3.2966\*\* | 5.9591\*\*\* | 3.6925\*\*\* | 3.1201\*\*\* | 2.8519 |
|  | (1.5199) | (0.7642) | (0.8330) | (1.3465) | (1.1323) | (0.8122) | (1.1794) | (1.8854) |
| Permanent | 0.5363\*\* | 0.0047 | -0.1778 | 0.8820 | 0.4079 | -0.1298 | -0.1301 | 0.3079 |
|  | (0.2414) | (0.2760) | (0.2952) | (0.6688) | (0.2610) | (0.3811) | (0.5044) | (0.7849) |
| Work experience | -0.0043 | 0.3526\*\*\* | 0.4051\*\*\* | 0.3829\*\*\* | -0.0018 | 0.3690\*\*\* | 0.4298\*\*\* | 0.4170\*\* |
|  | (0.0098) | (0.0332) | (0.0545) | (0.1377) | (0.0124) | (0.0446) | (0.0879) | (0.1655) |
| Sex (men=1) | 0.0781 | -0.2265 | -0.5452 | 0.8078 | 1.1612\*\*\* | 0.7030\*\* | 0.6217\* | 0.7738 |
|  | (0.2796) | (0.2530) | (0.3409) | (0.5068) | (0.2803) | (0.3249) | (0.3714) | (0.7014) |
| Unpaid domestic time | 0.0346\*\* | 0.0136 | 0.0030 | 0.0220 | 0.0346\*\* | 0.0166 | 0.0088 | -0.0031 |
|  | (0.0142) | (0.0091) | (0.0094) | (0.0204) | (0.0142) | (0.0108) | (0.0146) | (0.0237) |
| General health (lag) | 0.1088\*\*\* | 0.0916\*\*\* | 0.0878\*\*\* | 0.1022\*\*\* | 0.1499\*\*\* | 0.1499\*\*\* | 0.1380\*\*\* | 0.1949\*\*\* |
|  | (0.0058) | (0.0080) | (0.0094) | (0.0150) | (0.0082) | (0.0089) | (0.0093) | (0.0218) |
| *Smoking (reference group: Never smoke)* | |  |  |  |  |  |  |  |
| Past smoker | 0.0075 | -0.2563 | -0.2921 | -0.1830 | 0.0491 | -0.3054 | -0.2492 | -0.3566 |
|  | (0.1704) | (0.1899) | (0.1833) | (0.3363) | (0.2013) | (0.2337) | (0.2574) | (0.4913) |
| Current smoker | 0.2470 | -0.0714 | -0.2798 | -0.0798 | 0.4737\*\* | -0.0756 | -0.2058 | -0.6289 |
|  | (0.2222) | (0.2860) | (0.3642) | (0.6156) | (0.2395) | (0.3330) | (0.4497) | (0.9375) |
| *Alcohol drink (reference group: never drink)* | |  |  |  |  |  |  |  |
| Rarely/no longer | -0.1067 | -1.0882\*\* | -0.7195 | -1.8690\*\* | -0.8367\*\* | -1.5661\*\*\* | -1.2954\*\* | -1.6131 |
|  | (0.3549) | (0.4381) | (0.4532) | (0.9241) | (0.4106) | (0.4600) | (0.6361) | (1.5079) |
| Moderate | -0.5945 | -1.0006\*\* | -0.5834 | -1.7201\*\* | -0.6970 | -1.0100\*\* | -0.5501 | -1.1548 |
|  | (0.4203) | (0.4692) | (0.5210) | (0.8631) | (0.4531) | (0.4875) | (0.7057) | (1.5774) |
| Heavy | -0.6953\* | -1.4407\*\*\* | -1.1137\* | -2.9618\*\*\* | -0.6130 | -1.0009\* | -0.6183 | -1.7263 |
|  | (0.3999) | (0.5413) | (0.5721) | (1.1351) | (0.4988) | (0.5626) | (0.7998) | (1.7758) |
| Physical activity (lag) | 1.0543\*\* | 0.5902 | 0.7254\* | 1.0254\* | 2.0158\*\*\* | 1.4039\*\*\* | 1.4363\*\*\* | 2.9279\*\*\* |
| (high=1) | (0.4505) | (0.4001) | (0.3742) | (0.5361) | (0.4586) | (0.4812) | (0.5559) | (0.6414) |
| Urban (yes=1) | -0.0154 | -0.2850 | -0.2216 | -0.7116 | 0.2900 | -0.1228 | 0.0216 | -0.9323\*\* |
|  | (0.2543) | (0.3304) | (0.3311) | (0.6434) | (0.3178) | (0.3593) | (0.3912) | (0.4262) |
| Constant | -5.2111 | -10.6670\* | -13.5384\*\* | -4.3896 | -19.4760\*\*\* | -27.5589\*\*\* | -29.2480\*\*\* | -29.9479\* |
|  | (7.9539) | (6.1863) | (6.8722) | (14.0862) | (6.6353) | (6.4761) | (9.0313) | (16.3039) |
| Observations | 25,807 | 12,096 | 9,271 | 2,825 | 25,803 | 12,096 | 9,271 | 2,825 |
| P-value | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| R-squared | 0.3438 | 0.4039 | 0.4122 | 0.3722 | 0.3826 | 0.4573 | 0.4640 | 0.4783 |

*Note:* Bootstrapped standard errors in parentheses, significant \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Models controlled further for 9 ethnicity dummies, 8 occupation dummies, year and state dummies. Partner’s employment status, partner’s education, financial distress, and lag of log wage are excluded instruments used in the first stage.

**Supplementary Table S3:** Full health equation estimates for Table 4 (the second stage estimates)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Mental health | | Vitality | |
| Tipping point - overall | 39.8 |  | 39.0 |  |
| Tipping point - pink/blue collars |  | 37.3 |  | 37 |
| Tipping point - white collars |  | 46 |  | 44 |
| Mental health (lag) | 0.5466\*\*\* | 0.5435\*\*\* |  |  |
|  | (0.0117) | (0.0124) |  |  |
| Vitality (lag) |  |  | 0.5524\*\*\* | 0.5499\*\*\* |
|  |  |  | (0.0105) | (0.0096) |
| Weekly work hours | 0.6998\*\*\* | 1.2236\*\*\* | 0.9740\*\*\* | 1.9366\*\*\* |
|  | (0.1548) | (0.3743) | (0.2153) | (0.3781) |
| Weekly work hours-squared | -0.0088\*\*\* | -0.0164\*\*\* | -0.0125\*\*\* | -0.0264\*\*\* |
|  | (0.0021) | (0.0051) | (0.0028) | (0.0051) |
| Weekly work hours\*White collar |  | -0.9214\*\*\* |  | -1.5485\*\*\* |
|  |  | (0.3293) |  | (0.3353) |
| Weekly work hours-squared \*White collar |  | 0.0131\*\*\* |  | 0.0220\*\*\* |
|  |  | (0.0046) |  | (0.0046) |
| Wage in log | 3.8324\*\*\* | 3.7731\*\*\* | 4.4149\*\*\* | 4.1662\*\*\* |
|  | (0.8951) | (0.8258) | (0.8671) | (0.9051) |
| Work flexibility index | -0.0036 | -0.0005 | -0.0007 | 0.0029 |
|  | (0.0037) | (0.0044) | (0.0048) | (0.0050) |
| Work intensity index | -0.0392\*\*\* | -0.0414\*\*\* | -0.0398\*\*\* | -0.0404\*\*\* |
|  | (0.0063) | (0.0065) | (0.0057) | (0.0072) |
| Marital status (married=1) | 4.4679 | 4.7168 | 2.5761 | 3.1521 |
|  | (4.0524) | (3.8103) | (3.5603) | (3.4223) |
| *Employment type (reference group: fixed term)* | | |  |  |
| Casual | 2.9541\*\*\* | 3.0917\*\*\* | 3.6925\*\*\* | 4.1683\*\*\* |
|  | (0.6087) | (0.7618) | (0.8903) | (0.7573) |
| Permanent | 0.0047 | 0.0510 | -0.1298 | -0.0863 |
|  | (0.3216) | (0.3257) | (0.3819) | (0.3329) |
| Work experience | 0.3526\*\*\* | 0.3578\*\*\* | 0.3690\*\*\* | 0.3959\*\*\* |
|  | (0.0317) | (0.0431) | (0.0412) | (0.0429) |
| Sex (men=1) | -0.2265 | -0.3025 | 0.7030\*\* | 0.6269\* |
|  | (0.2571) | (0.3012) | (0.3365) | (0.3240) |
| Unpaid domestic time | 0.0136\* | 0.0143 | 0.0166\* | 0.0233\*\* |
|  | (0.0077) | (0.0106) | (0.0098) | (0.0113) |
| General health (lag) | 0.0916\*\*\* | 0.0904\*\*\* | 0.1499\*\*\* | 0.1487\*\*\* |
|  | (0.0065) | (0.0074) | (0.0095) | (0.0086) |
| *Smoking (reference group: Never smoke)* | | |  |  |
| Past smoker | -0.2563 | -0.2541 | -0.3054 | -0.2924 |
|  | (0.1881) | (0.1739) | (0.1973) | (0.2202) |
| Current smoker | -0.0714 | -0.0961 | -0.0756 | -0.0179 |
|  | (0.2820) | (0.3228) | (0.3163) | (0.3774) |
| *Alcohol drink (reference group: never drink)* | | |  |  |
| Rarely/no longer | -1.0882\*\*\* | -1.0260\*\* | -1.5661\*\*\* | -1.4453\*\*\* |
|  | (0.3724) | (0.4830) | (0.4207) | (0.5123) |
| Moderate drinker | -1.0006\*\*\* | -0.9602\*\* | -1.0100\*\* | -1.0508\*\* |
|  | (0.3809) | (0.4737) | (0.4739) | (0.4929) |
| Heavy drinker | -1.4407\*\*\* | -1.3142\*\* | -1.0009\* | -0.7540 |
|  | (0.4873) | (0.5413) | (0.5355) | (0.5946) |
| Physical activity (lag) (high=1) | 0.5902\*\* | 0.6646\*\* | 1.4039\*\*\* | 1.2778\*\* |
|  | (0.2760) | (0.2878) | (0.5135) | (0.5471) |
| Urban (yes=1) | -0.2850 | -0.3316 | -0.1228 | -0.1648 |
|  | (0.2824) | (0.3068) | (0.3535) | (0.3941) |
| Constant | -10.6670\* | -4.5587 | -27.5589\*\*\* | -19.5314\*\*\* |
|  | (6.3115) | (5.3209) | (7.0039) | (5.5791) |
| Observations | 12,096 | 12,096 | 12,096 | 12,096 |
| P-value | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| R-squared | 0.4039 | 0.3929 | 0.4573 | 0.4298 |

*Note:* Bootstrapped standard errors in parentheses, significant \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Models controlled further for 9 ethnicity dummies, 8 occupation dummies, year and state dummies. Partner’s employment status, partner’s education, financial distress, and lag of log wage are excluded instruments used in the first stage.

**Supplementary Table S4:** Full health equation estimates for Table 5 (the second stage estimates)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Mental health | | | Vitality | | |
|  | < 20pc PH | <30pc PH | >50pc PH | < 20th pc | < 30th pc | >50pc PH |
| Tipping point | 37 | 39 | 44 | 32.3 | 36.0 | 43.4 |
| Mental health (lag) | 0.5446\*\*\* | 0.5444\*\*\* | 0.5447\*\*\* |  |  |  |
|  | (0.0115) | (0.0109) | (0.0093) |  |  |  |
| Vitality (lag) |  |  |  | 0.5464\*\*\* | 0.5432\*\*\* | 0.5417\*\*\* |
|  |  |  |  | (0.0117) | (0.0121) | (0.0091) |
| Work hours | 0.5104\*\*\* | 0.4253\*\*\* | 0.4305\*\*\* | 0.4716\*\* | 0.3965\*\* | 0.3840\*\*\* |
|  | (0.1939) | (0.1575) | (0.1393) | (0.1901) | (0.1782) | (0.1465) |
| Work hours-squared | -0.0069\*\* | -0.0054\*\* | -0.0054\*\*\* | -0.0073\*\*\* | -0.0055\*\* | -0.0051\*\*\* |
|  | (0.0028) | (0.0021) | (0.0019) | (0.0028) | (0.0025) | (0.0019) |
| Work hours\*Over 20pc | -0.0380 |  |  | 0.0711 |  |  |
|  | (0.0826) |  |  | (0.0830) |  |  |
| Work hours-squared \*Over20pc | 0.0016 |  |  | 0.0010 |  |  |
|  | (0.0016) |  |  | (0.0016) |  |  |
| Work hours\*Over 30pc |  | 0.0199 |  |  | 0.1383\*\* |  |
|  |  | (0.0537) |  |  | (0.0539) |  |
| Work hours-squared \*Over30pc |  | 0.0004 |  |  | -0.0007 |  |
|  |  | (0.0010) |  |  | (0.0011) |  |
| Work hours\*Over 50pc |  |  | 0.0245 |  |  | 0.1543\*\*\* |
|  |  |  | (0.0441) |  |  | (0.0388) |
| Work hours-squared \*Over50pc |  |  | 0.0002 |  |  | -0.0011 |
|  |  |  | (0.0008) |  |  | (0.0008) |
| Wage in log | 3.7753\*\*\* | 3.8599\*\*\* | 3.8244\*\*\* | 4.0964\*\*\* | 4.1855\*\*\* | 4.0126\*\*\* |
|  | (0.7173) | (0.6237) | (0.9529) | (0.9194) | (0.8889) | (0.9878) |
| Work flexibility index | -0.0017 | -0.0010 | -0.0010 | 0.0047 | 0.0047 | 0.0052 |
|  | (0.0043) | (0.0050) | (0.0036) | (0.0059) | (0.0062) | (0.0054) |
| Work intensity index | -0.0469\*\*\* | -0.0472\*\*\* | -0.0473\*\*\* | -0.0445\*\*\* | -0.0432\*\*\* | -0.0426\*\*\* |
|  | (0.0055) | (0.0051) | (0.0043) | (0.0074) | (0.0064) | (0.0069) |
| Marital status (married=1) | 4.2602 | 4.2585 | 4.2665 | 2.1476 | 2.2792 | 2.3658 |
|  | (3.6777) | (3.6784) | (3.9600) | (2.8689) | (3.2761) | (3.4135) |
| *Employment type (reference group: fixed term)* | | |  |  |  |  |
| Casual | 2.5101\*\*\* | 2.3564\*\*\* | 2.3817\*\*\* | 2.5376\*\*\* | 2.3662\*\*\* | 2.3113\*\*\* |
|  | (0.6190) | (0.6912) | (0.6182) | (0.6312) | (0.7864) | (0.8201) |
| Permanent | 0.1222 | 0.1028 | 0.1182 | 0.1527 | 0.0809 | 0.1266 |
|  | (0.2874) | (0.3496) | (0.3120) | (0.3478) | (0.4463) | (0.4603) |
| Work experience | 0.3488\*\*\* | 0.3401\*\*\* | 0.3388\*\*\* | 0.3156\*\*\* | 0.3116\*\*\* | 0.3026\*\*\* |
|  | (0.0332) | (0.0320) | (0.0335) | (0.0371) | (0.0414) | (0.0516) |
| Sex (men=1) | -0.3736 | -0.4601 | -0.4651\* | 0.4146 | 0.2867 | 0.2405 |
|  | (0.2971) | (0.3033) | (0.2644) | (0.3149) | (0.3729) | (0.3618) |
| Unpaid domestic time | 0.0042 | 0.0012 | 0.0011 | -0.0032 | -0.0056 | -0.0081 |
|  | (0.0087) | (0.0092) | (0.0081) | (0.0101) | (0.0087) | (0.0086) |
| General health (lag) | 0.0867\*\*\* | 0.0805\*\*\* | 0.0794\*\*\* | 0.1275\*\*\* | 0.1211\*\*\* | 0.1154\*\*\* |
|  | (0.0093) | (0.0095) | (0.0084) | (0.0083) | (0.0125) | (0.0096) |
| *Smoking (reference group: Never smoke)* | |  |  |  |  |  |
| Smoking (Past smoker) | -0.2569 | -0.2431 | -0.2460 | -0.2264 | -0.2075 | -0.2085 |
|  | (0.2020) | (0.1843) | (0.2002) | (0.2447) | (0.2817) | (0.2322) |
| Smoking (Current smoker) | -0.1673 | -0.2180 | -0.2203 | -0.2981 | -0.3074 | -0.3469 |
|  | (0.3182) | (0.3333) | (0.3179) | (0.3552) | (0.3394) | (0.3909) |
| *Alcohol drink (reference group: never drink)* | | |  |  |  |  |
| Rarely/no longer | -1.0430\* | -0.9983\*\*\* | -0.9835\* | -1.4772\*\* | -1.3936\*\* | -1.2874\* |
|  | (0.5880) | (0.3804) | (0.5188) | (0.6509) | (0.5506) | (0.6822) |
| Moderate drinker | -0.8865 | -0.8458\* | -0.8214\* | -0.6032 | -0.5458 | -0.3921 |
|  | (0.5637) | (0.4452) | (0.4489) | (0.6588) | (0.5852) | (0.6559) |
| Heavy drinker | -1.6208\*\* | -1.6059\*\*\* | -1.6085\*\*\* | -0.8050 | -0.6989 | -0.6345 |
|  | (0.7458) | (0.4850) | (0.5638) | (0.7754) | (0.6439) | (0.6877) |
| Physical activity (lag) (high=1) | 0.8193\*\*\* | 0.8275\*\*\* | 0.7827\*\*\* | 2.0753\*\*\* | 2.0014\*\*\* | 1.8861\*\*\* |
|  | (0.2861) | (0.2271) | (0.2603) | (0.4099) | (0.3877) | (0.3501) |
| Urban (yes=1) | -0.3020 | -0.2977 | -0.3193 | -0.1342 | -0.1112 | -0.1698 |
|  | (0.2846) | (0.2622) | (0.3055) | (0.3323) | (0.4181) | (0.3632) |
| Constant | -6.1011 | -4.9495 | -4.7418 | -15.447\*\*\* | -14.793\*\*\* | -12.909\* |
|  | (6.2910) | (6.4171) | (6.0352) | (5.9232) | (4.7245) | (7.3432) |
| Observations | 12,189 | 12,189 | 12,189 | 12,189 | 12,189 | 12,189 |
| P-value | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| R-squared | 0.4162 | 0.4204 | 0.4204 | 0.4894 | 0.4923 | 0.4954 |

*Note:* Bootstrapped standard errors in parentheses, significant \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Models controlled further for 9 ethnicity dummies, 8 occupation dummies, year and state dummies. Partner’s employment status, partner’s education, financial distress, and lag of log wage are excluded instruments used in the first stage.