# Additional tables and figures as well as numbers used in text

Table EXTRA.1: Employment shares in industries and occupations

| | Non-EU origin | | | Low skilled natives | | | High skilled natives | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1994 | 2008 | Dif. | 1994 | 2008 | Dif. | 1994 | 2008 | Dif. |
| *Industries (NACE 9-grouping):* | | | | | | | | | |
| Agriculture, fishing and quarrying | 0.9 | 6.6 | 5.7 | 57.7 | 36.2 | -21.5 | 40.3 | 55.5 | 15.2 |
| Manufacturing | 2.1 | 5.5 | 3.4 | 41.8 | 30.1 | -11.7 | 54.9 | 62.8 | 7.9 |
| Electricity, gas and water supply | 0.8 | 1.5 | 0.7 | 27.1 | 15.3 | -11.8 | 71.2 | 82.1 | 11.0 |
| Construction | 0.5 | 1.6 | 1.1 | 33.3 | 28.3 | -5.0 | 65.4 | 69.2 | 3.8 |
| Wholesale and retail sale, hotels and restaurants | 1.6 | 5.0 | 3.4 | 37.6 | 28.7 | -9.0 | 59.4 | 64.6 | 5.2 |
| Transport, post and telecommunications | 1.5 | 6.2 | 4.7 | 49.8 | 40.1 | -9.7 | 47.3 | 52.1 | 4.8 |
| Finance and business activities | 1.2 | 4.3 | 3.1 | 25.7 | 19.3 | -6.4 | 71.6 | 74.5 | 2.9 |
| Public and personal services | 1.4 | 3.8 | 2.4 | 28.1 | 17.4 | -10.7 | 68.8 | 77.0 | 8.2 |
| *Occupations (1-digit ISCO):* | | | | | | | | | |
| Armed forces | 0.2 | 0.5 | 0.3 | 49.9 | 43.4 | -6.5 | 49.5 | 55.7 | 6.2 |
| Legislators, senior officials and managers | 1.0 | 0.8 | -0.2 | 21.7 | 14.6 | -7.1 | 75.6 | 83.2 | 7.6 |
| Professionals | 1.4 | 2.8 | 1.4 | 8.6 | 6.5 | -2.1 | 87.9 | 88.2 | 0.4 |
| Technicians and associate professionals | 0.9 | 2.1 | 1.2 | 16.4 | 12.9 | -3.4 | 81.1 | 83.4 | 2.3 |
| Clerks | 0.7 | 2.8 | 2.1 | 35.3 | 27.5 | -7.8 | 63.1 | 68.5 | 5.4 |
| Service and shop and market sales workers | 1.5 | 5.3 | 3.8 | 41.4 | 28.2 | -13.2 | 55.8 | 65.1 | 9.3 |
| Skilled agricultural and fishery workers | 0.3 | 1.0 | 0.7 | 46.8 | 24.5 | -22.3 | 52.0 | 73.3 | 21.3 |
| Craft and related trades workers | 0.9 | 2.5 | 1.6 | 24.4 | 21.3 | -3.0 | 73.9 | 75.2 | 1.4 |
| Plant and machine operators and assemblers | 3.0 | 7.9 | 4.9 | 62.9 | 46.9 | -16.0 | 33.0 | 43.9 | 10.9 |
| Elementary occupations | 3.5 | 12.7 | 9.1 | 66.5 | 47.6 | -18.9 | 28.6 | 38.1 | 9.5 |
| Missing or invalid | 3.3 | 8.2 | 4.9 | 65.9 | 37.5 | -28.4 | 28.2 | 51.6 | 23.5 |

Notes: Each row shows foreign born with non-EU origin, low skilled and high skilled natives as share of employment in 1994 and 2008 and the change. More aggregate versions of the employment shares in industries (Table A.1) and occupations (Table A.2) are shown in the appendix.

Table EXTRA.2: Wage growth 1995-2008

| | Low skilled | High skilled |
|---|---|---|
| *Cohort-sample* | | |
| Hourly wage | 0.18 | 0.19 |
| Annual earnings | 0.19 | 0.17 |
| | | |
| *Spell-sample* | | |
| Hourly wage | 0.23 | 0.20 |
| Annual earnings | 0.31 | 0.26 |
| | | |
| *Spell-sample, age 20-65* | | |
| Hourly wage | 0.20 | 0.20 |
| Annual earnings | 0.27 | 0.26 |

Table EXTRA.3: Pre-trend in native outcomes and in-sample trend in EU-instrument

|  | 1991-1994 difference in average | | | |
|---|---|---|---|---|
|  | Occupational complexity | Hourly wage | Annual earnings | Fraction of year worked |
| *Low skilled* | | | | |
| 1994-2008 dif. in instrument | 2.668 | 2.630* | 1.253 | -0.223 |
|  | (1.736) | (1.063) | (2.536) | (0.981) |
| Averaged controls | Yes | Yes | Yes | Yes |
| Observations | 97 | 97 | 97 | 97 |
| R-squared | 0.07 | 0.40 | 0.21 | 0.62 |
| *High skilled* | | | | |
| 1994-2008 dif. in instrument | 1.657 | 1.747* | 0.677 | 1.206 |
|  | (0.933) | (0.690) | (1.394) | (0.692) |
| Averaged controls | Yes | Yes | Yes | Yes |
| Observations | 97 | 97 | 97 | 97 |
| R-squared | 0.63 | 0.54 | 0.30 | 0.72 |

Notes: Regressions are based on labor force averages for each municipality, and weighted by the size of the labor force in the municipality. Averaged controls are age, experience, tenure, (each of those squared) and marital status averaged for each municipality in 1994.

Table EXTRA.4: Pre-trend in native outcomes and in-sample trend in EU-instrument

|  | 1991-1994 difference in average | | | |
|---|---|---|---|---|
|  | Occupational complexity | Hourly wage | Annual earnings | Fraction of year worked |
| *Low skilled* | | | | |
| 1994-2008 dif. in instrument | 0.200 | -3.980* | -9.320 | -3.251 |
|  | (3.545) | (1.988) | (5.166) | (1.664) |
| Averaged controls | Yes | Yes | Yes | Yes |
| Observations | 97 | 97 | 97 | 97 |
| R-squared | 0.36 | 0.65 | 0.46 | 0.82 |
| *High skilled* | | | | |
| 1994-2008 dif. in instrument | 0.986 | 1.066 | 1.589 | 0.383 |
|  | (1.552) | (0.953) | (2.204) | (1.062) |
| Averaged controls | Yes | Yes | Yes | Yes |
| Observations | 97 | 97 | 97 | 97 |
| R-squared | 0.69 | 0.74 | 0.47 | 0.80 |

Notes: Regressions are based on labor force averages for each municipality, and weighted by the size of the labor force in the municipality. Averaged controls are those listed in Table 3 averaged for each municipality in 1994.

Table EXTRA.5: Compare annual earnings measures, *low* skilled

| Dependent variable | (1) Within worker-firm match OLS | (2) Within worker-firm match 2SLS | (3) Within worker-municipality OLS | (4) Within worker-municipality 2SLS |
|---|---|---|---|---|
| *All* | | | | |
| Annual earnings (raw) | 0.105 | 0.566* | 0.191 | 0.594* |
| | (0.116) | (0.261) | (0.121) | (0.253) |
| Annual earnings (preferred) | 0.092 | 0.527 | 0.168 | 0.553* |
| | (0.127) | (0.297) | (0.122) | (0.276) |
| *Manufacturing* | | | | |
| Annual earnings (raw) | -0.354 | 0.781 | 0.227 | 0.746 |
| | (0.307) | (0.746) | (0.277) | (0.542) |
| Annual earnings (preferred) | -0.308 | 1.049 | 0.313 | 1.044 |
| | (0.341) | (0.844) | (0.300) | (0.572) |
| *Non-complex* | | | | |
| Annual earnings (raw) | 0.865** | 1.362** | 0.379 | 0.530 |
| | (0.286) | (0.429) | (0.222) | (0.455) |
| Annual earnings (preferred) | 0.889** | 1.270** | 0.414 | 0.482 |
| | (0.300) | (0.405) | (0.233) | (0.516) |
| *Complex* | | | | |
| Annual earnings (raw) | 0.607** | 1.885*** | 0.862*** | 2.884*** |
| | (0.189) | (0.399) | (0.243) | (0.583) |
| Annual earnings (preferred) | 0.534* | 1.780*** | 0.736** | 2.731*** |
| | (0.221) | (0.380) | (0.250) | (0.552) |
| *Public* | | | | |
| Annual earnings (raw) | -0.224 | -0.677* | -0.233 | -0.959* |
| | (0.127) | (0.320) | (0.203) | (0.429) |
| Annual earnings (preferred) | -0.289* | -0.889* | -0.296 | -1.179* |
| | (0.137) | (0.382) | (0.214) | (0.489) |

Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Each entry of the table is the coefficient on the explanatory variable of interest (immigrant share) in equation 4 using a sample of employed natives between 1995 and 2008. Control variables not shown are: age, experience, tenure, (each of those squared), marital status, education, region by year and industry by year dummies (listed in Table 3). Standard errors in parentheses and $F$-statistic for significance of excluded instrument are clustered by municipality. First stage as well as the preferred estimates are identical to Table 5 and 7 in the main text.

Table EXTRA.6: Compare annual earnings measures, *high* skilled

| Dependent variable | (1) Within worker-firm match | (2) | (3) Within worker-municipality | (4) |
|---|---|---|---|---|
| | OLS | 2SLS | OLS | 2SLS |
| *All* | | | | |
| Annual earnings (raw) | 0.043 | 0.631 | 0.100 | 0.791 |
| | (0.111) | (0.325) | (0.121) | (0.406) |
| Annual earnings (preferred) | 0.071 | 0.840** | 0.105 | 0.971* |
| | (0.130) | (0.281) | (0.144) | (0.385) |
| *Manufacturing* | | | | |
| Annual earnings (raw) | -0.098 | 0.630 | -0.052 | 0.358 |
| | (0.221) | (0.521) | (0.210) | (0.397) |
| Annual earnings (preferred) | -0.025 | 0.944 | 0.020 | 0.617 |
| | (0.263) | (0.501) | (0.243) | (0.360) |
| *Non-complex* | | | | |
| Annual earnings (raw) | -0.040 | 0.674 | 0.012 | 0.674 |
| | (0.229) | (0.636) | (0.163) | (0.612) |
| Annual earnings (preferred) | 0.036 | 0.792 | 0.042 | 0.766 |
| | (0.212) | (0.453) | (0.173) | (0.518) |
| *Complex* | | | | |
| Annual earnings (raw) | 0.465 | 1.975** | 0.454 | 2.293** |
| | (0.265) | (0.741) | (0.290) | (0.833) |
| Annual earnings (preferred) | 0.414 | 2.281*** | 0.429 | 2.711** |
| | (0.318) | (0.663) | (0.349) | (0.847) |
| *Public* | | | | |
| Annual earnings (raw) | -0.068 | 0.082 | -0.023 | 0.112 |
| | (0.082) | (0.129) | (0.108) | (0.125) |
| Annual earnings (preferred) | -0.047 | 0.258 | -0.021 | 0.254 |
| | (0.079) | (0.148) | (0.097) | (0.139) |

Notes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Each entry of the table is the coefficient on the explanatory variable of interest (immigrant share) in equation 4 using a sample of employed natives between 1995 and 2008. Control variables not shown are: age, experience, tenure, (each of those squared), marital status, education, region by year and industry by year dummies (listed in Table 3). Standard errors in parentheses and $F$-statistic for significance of excluded instrument are clustered by municipality. First stage as well as the preferred estimates are identical to Table 6 and 8 in the main text.

Figure EXTRA.1: The long-run effect on *low* skilled (event-like study - redefining event to start in 1996)
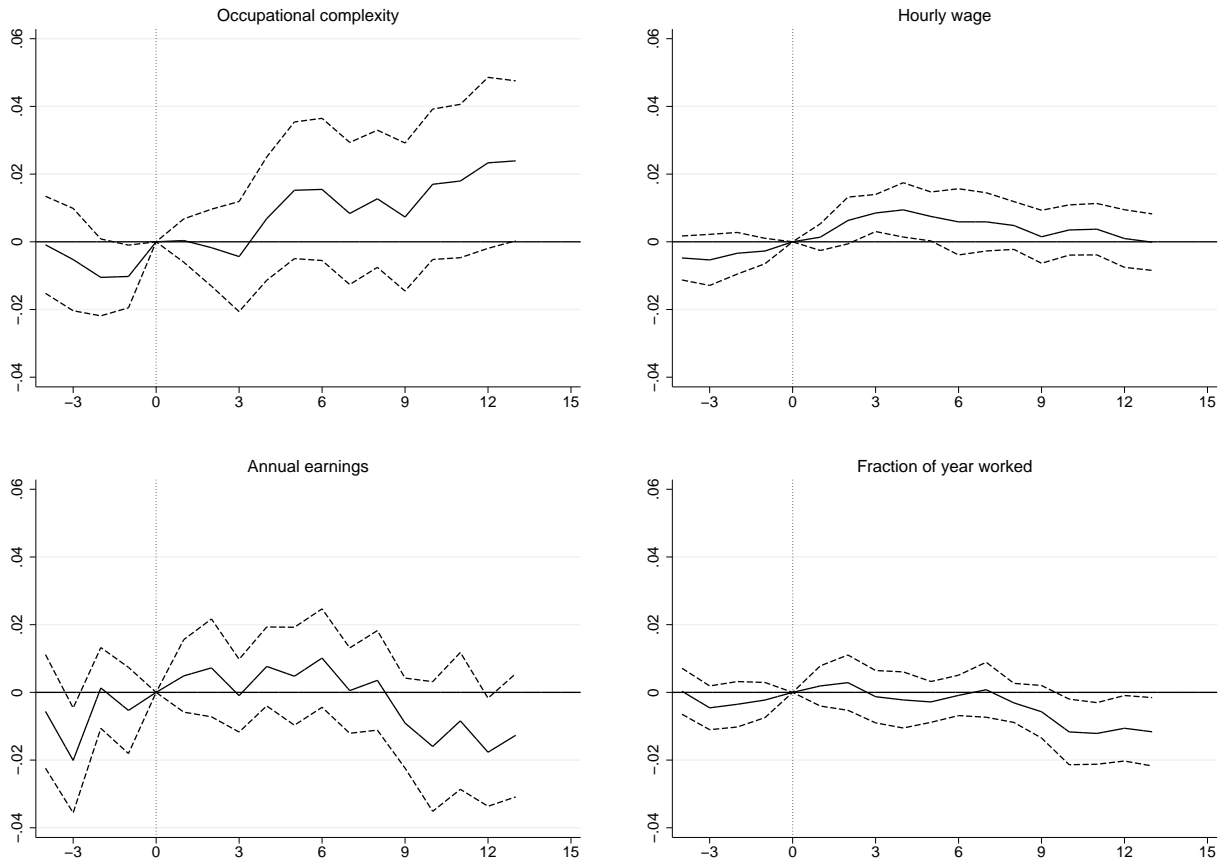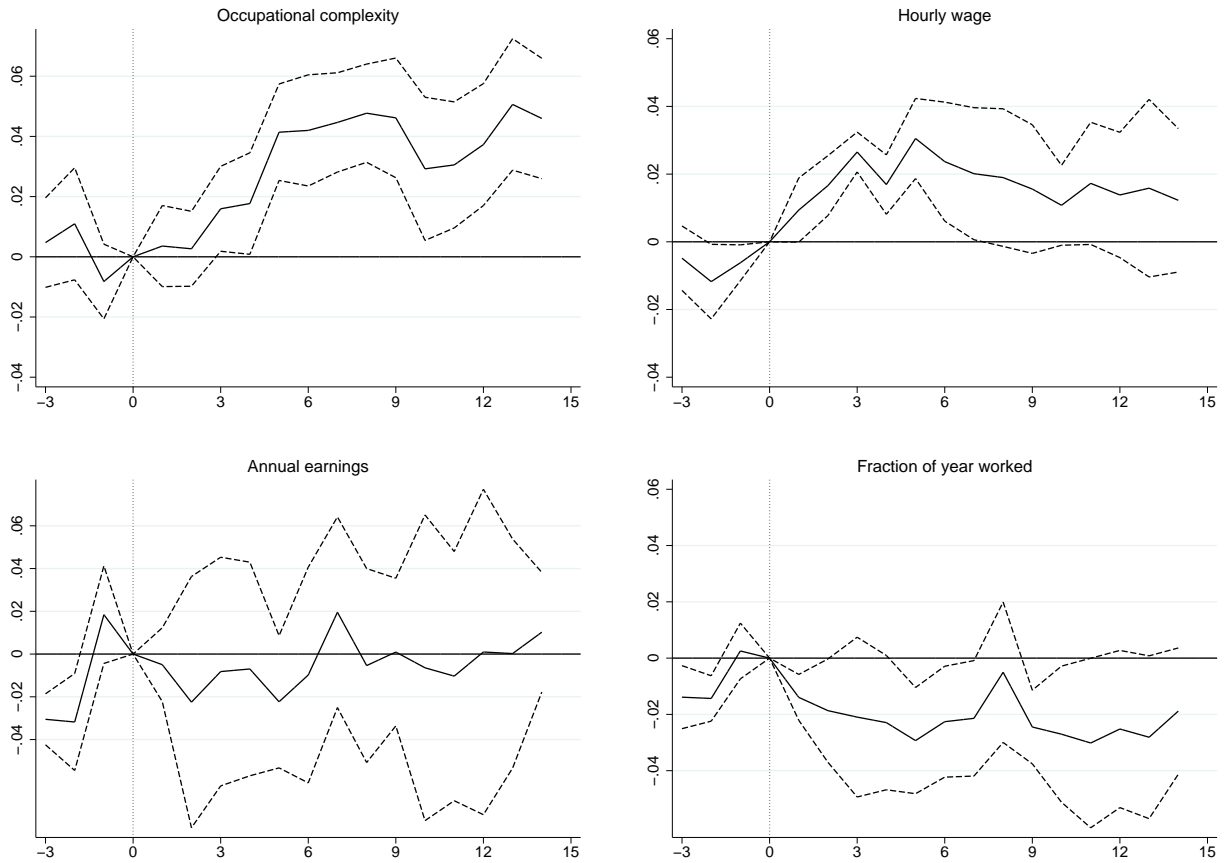


Notes: Parameter estimates (——) and 95% confidence limits (- - -) on the interaction terms of immigration exposure and year dummies in equation 6 using a *strongly balanced* panel of natives employed in 1995. Standard errors are clustered at the 1995-municipality.

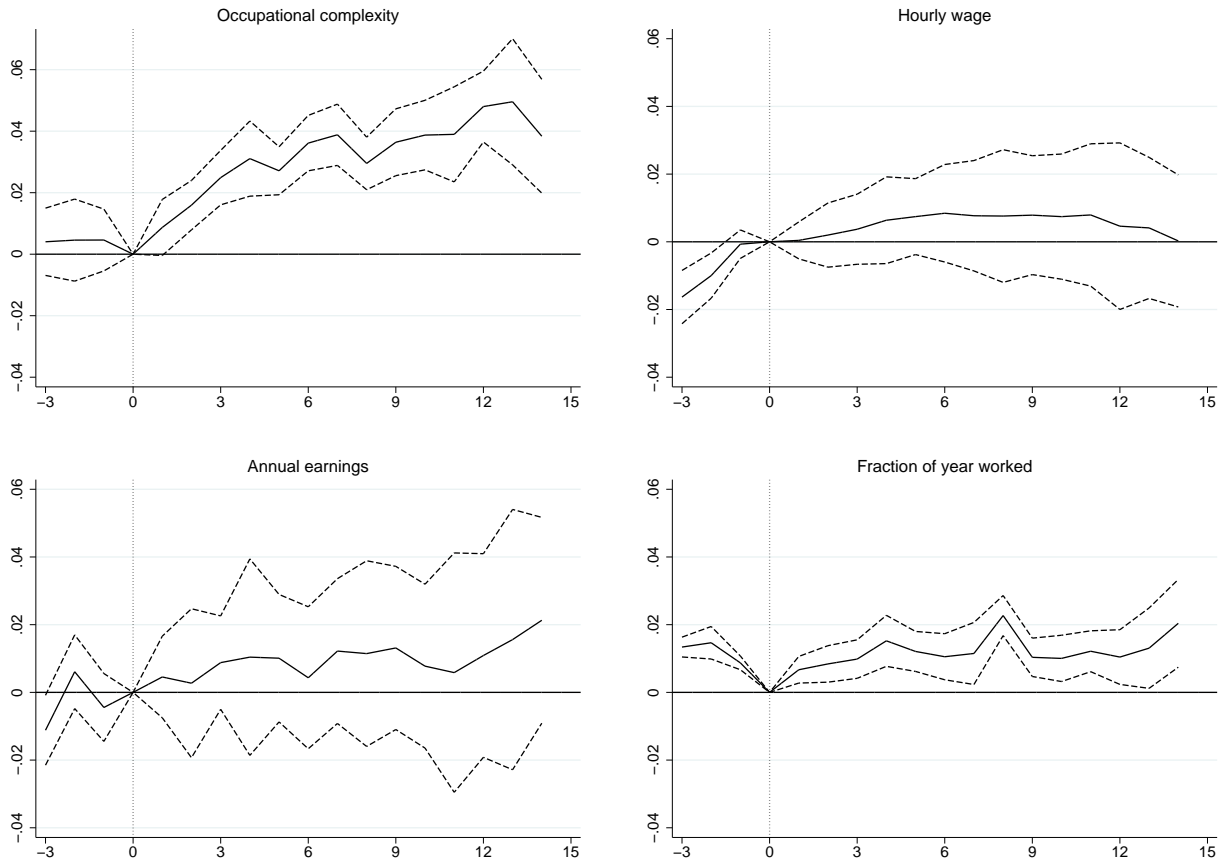Figure EXTRA.2: The long-run effect on *high* skilled (event-like study - redefining event to start in 1996)
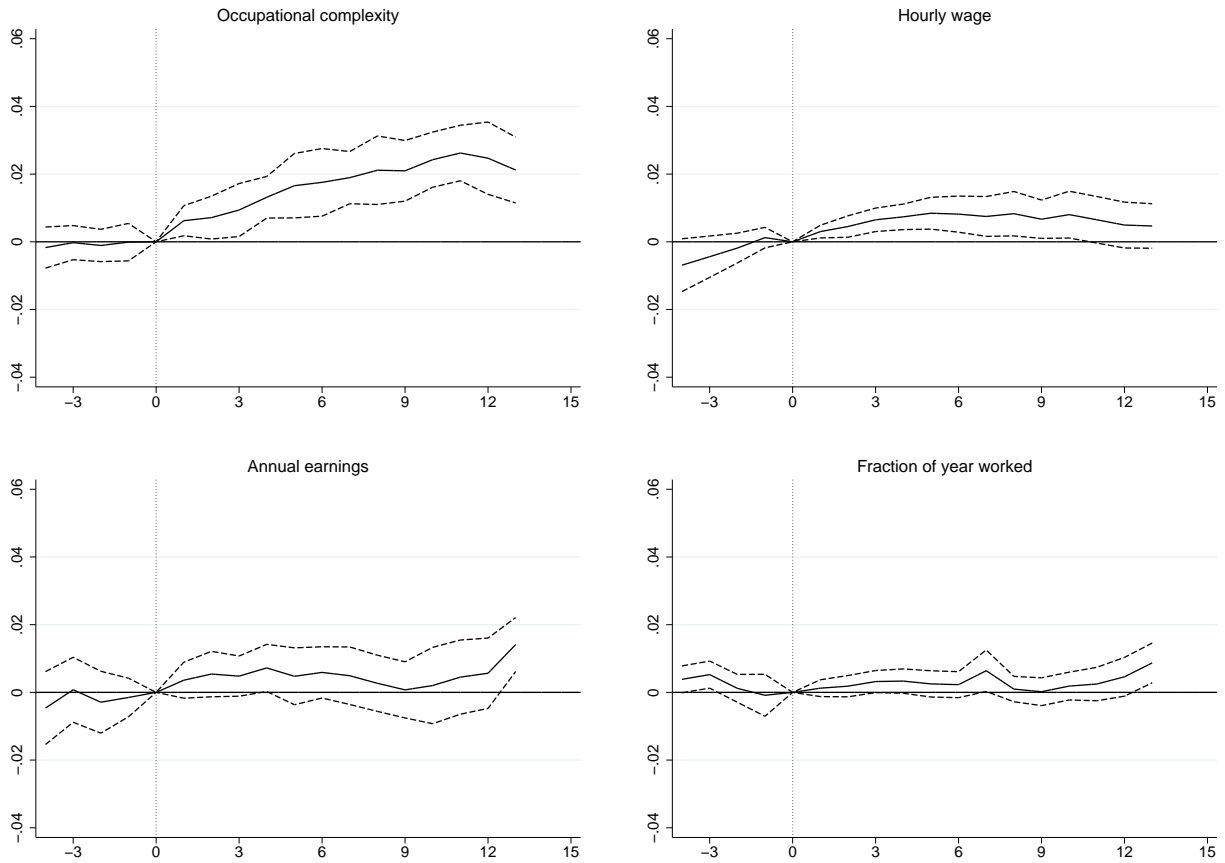


Notes: Parameter estimates (——) and 95% confidence limits (- - -) on the interaction terms of immigration exposure and year dummies in equation 6 using a *strongly balanced* panel of natives employed in 1995. Standard errors are clustered at the 1995-municipality.

Figure EXTRA.3: The long-run effect on *low* skilled (event-like study - redefining treated (control) to be lower (upper) quartile)



Notes: Parameter estimates (——) and 95% confidence limits (- - -) on the interaction terms of immigration exposure and year dummies in equation 6 using a *strongly balanced* panel of natives employed in 1994. Standard errors are clustered at the 1995-municipality.

Figure EXTRA.4: The long-run effect on *high* skilled (event-like study -redefining treated (control) to be lower (upper) quartile)