

Supplementary Online Appendix

**The Gendered Value of Education in the ‘College for All’ Era and the Role of Literacy and
Numeracy Skills**

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Appendix A. Descriptive Statistics for Study Measures

| Measures | Mean | Std. dev. |
|---|--------|-----------|
| <i>Individual-level measures</i> | | |
| Earning quantile | 3.22 | 1.33 |
| Gender (women=1) | | |
| Females | 0.43 | |
| Males | 0.57 | |
| First generation immigrant | | |
| No | 0.84 | |
| Yes | 0.12 | |
| Missing | 0.04 | |
| Mother education | | |
| No BA | 0.77 | |
| BA | 0.21 | |
| Missing | 0.02 | |
| Father education | | |
| No BA | 0.73 | |
| BA | 0.23 | |
| Missing | 0.03 | |
| Work experience (in years) | 13.13 | 5.11 |
| Skilled occupation | | |
| No | 0.55 | |
| Yes | 0.45 | |
| <i>Country-level measures</i> | | |
| % 25-64-year-olds with college education in country | 0.36 | 0.10 |
| % with high literacy skills, by gender | 0.12 | 0.06 |
| % with high numeracy skills, by gender | 0.11 | 0.07 |
| % employed in government (GE) | 14.75 | 5.16 |
| Purchasing power parity (PPP) | 14.11 | 184.19 |
| Gross domestic product (GDP) | 494.18 | 13727.66 |
| Union density (UD) | -4.58 | 11.81 |
| Educational tracking index (TR) | 0.03 | 0.72 |

Source: PIACC data. Includes 30-39-year-old employed adults in 26 countries (N=24,075)

Appendix B. Percentage Distribution of Skills and Credential Combinations, by Country and

Gender

| Skill & credential combination: | Men | | | | Women | | | |
|---------------------------------|----------------------|-----------|-------------------------|-----------|----------------------|-----------|-------------------------|-----------|
| | Aligned LCLS % | HCHS % | Misaligned LCHS % | HCLS % | Aligned LCLS % | HCHS % | Misaligned LCHS % | HCLS % |
| Panel A: Literacy Skills | | | | | | | | |
| Austria | 67 | 7 | 7 | 19 | 70 | 6 | 5 | 19 |
| Belgium | 51 | 19 | 5 | 25 | 44 | 16 | 3 | 37 |
| Canada | 36 | 19 | 5 | 40 | 28 | 19 | 2 | 51 |
| Chile | 60 | 4 | 0 | 36 | 52 | 2 | 0 | 46 |
| Czech Republic | 75 | 7 | 6 | 12 | 66 | 9 | 4 | 21 |
| Denmark | 51 | 13 | 5 | 31 | 35 | 17 | 2 | 46 |
| Finland | 42 | 23 | 11 | 24 | 25 | 36 | 7 | 32 |
| France | 60 | 10 | 3 | 27 | 44 | 11 | 2 | 43 |
| Germany | 54 | 13 | 5 | 27 | 53 | 12 | 6 | 28 |
| Greece | 62 | 5 | 0 | 34 | 51 | 9 | 1 | 39 |
| Ireland | 45 | 11 | 6 | 38 | 40 | 12 | 2 | 47 |
| Israel | 41 | 10 | 2 | 47 | 28 | 11 | 2 | 60 |
| Italy | 79 | 3 | 4 | 14 | 70 | 4 | 3 | 24 |
| Japan | 36 | 25 | 13 | 27 | 36 | 22 | 6 | 36 |
| Republic of Korea | 37 | 10 | 2 | 50 | 39 | 10 | 2 | 49 |
| Netherlands | 46 | 23 | 10 | 21 | 48 | 19 | 7 | 27 |
| New Zealand | 41 | 16 | 4 | 38 | 33 | 22 | 5 | 40 |
| Norway | 48 | 19 | 7 | 26 | 39 | 18 | 4 | 40 |
| Poland | 61 | 10 | 3 | 27 | 43 | 11 | 3 | 43 |
| Slovakia | 70 | 4 | 7 | 19 | 68 | 7 | 3 | 23 |
| Slovenia | 71 | 5 | 2 | 23 | 47 | 7 | 3 | 44 |
| Spain | 54 | 8 | 3 | 36 | 47 | 7 | 0 | 46 |
| Sweden | 54 | 20 | 9 | 18 | 42 | 21 | 4 | 33 |
| Turkey | 79 | 1 | 0 | 20 | 64 | 2 | 0 | 35 |
| GB & Northern Ireland | 44 | 15 | 7 | 35 | 38 | 12 | 5 | 45 |
| USA | 58 | 15 | 1 | 26 | 45 | 13 | 2 | 40 |
| Panel B: Numeracy Skills | | | | | | | | |
| Austria | 60 | 11 | 13 | 15 | 69 | 8 | 6 | 17 |
| Belgium | 45 | 25 | 10 | 19 | 41 | 15 | 5 | 39 |
| Canada | 37 | 21 | 4 | 38 | 29 | 13 | 1 | 56 |
| Chile | 60 | 6 | 0 | 34 | 52 | 1 | 0 | 47 |
| Czech Republic | 71 | 8 | 10 | 11 | 67 | 7 | 3 | 23 |
| Denmark | 46 | 22 | 10 | 22 | 36 | 18 | 1 | 45 |
| Finland | 41 | 26 | 12 | 20 | 28 | 24 | 4 | 45 |
| France | 60 | 15 | 2 | 23 | 44 | 12 | 2 | 42 |
| Germany | 54 | 19 | 6 | 21 | 55 | 13 | 4 | 28 |
| Greece | 61 | 9 | 0 | 30 | 51 | 9 | 2 | 39 |
| Ireland | 47 | 12 | 4 | 37 | 41 | 7 | 0 | 51 |
| Israel | 40 | 15 | 3 | 42 | 29 | 12 | 1 | 58 |
| Italy | 77 | 4 | 6 | 13 | 70 | 3 | 3 | 25 |
| Japan | 38 | 21 | 10 | 31 | 39 | 15 | 4 | 42 |
| Republic of Korea | 38 | 10 | 1 | 51 | 39 | 7 | 2 | 52 |
| Netherlands | 45 | 21 | 11 | 23 | 49 | 16 | 5 | 30 |
| New Zealand | 38 | 19 | 7 | 35 | 34 | 15 | 3 | 48 |
| Norway | 44 | 25 | 11 | 20 | 39 | 19 | 3 | 39 |
| Poland | 61 | 12 | 2 | 25 | 45 | 8 | 1 | 46 |
| Slovakia | 66 | 7 | 11 | 16 | 64 | 8 | 7 | 21 |

| | | | | | | | | |
|-----------------------|----|----|----|----|----|----|---|----|
| Slovenia | 67 | 7 | 6 | 20 | 47 | 8 | 3 | 43 |
| Spain | 54 | 6 | 2 | 37 | 47 | 4 | 1 | 48 |
| Sweden | 49 | 20 | 13 | 18 | 43 | 18 | 3 | 36 |
| Turkey | 77 | 3 | 1 | 19 | 63 | 5 | 1 | 31 |
| GB & Northern Ireland | 43 | 16 | 7 | 34 | 39 | 10 | 4 | 47 |
| USA | 57 | 15 | 2 | 25 | 46 | 10 | 1 | 44 |

Source: PIACC data. Includes 30-39-year-old employed adults in 26 countries (N=24,975).

Note: LCLS=low credentials and low skills, HCHS=high credentials and high skills, LCHS=high credentials and low skills, HCLS=high credentials and low skills

Appendix C. Replication of Table 4 with Alternative Definitions of Key Variables

| Robustness check: Skill type: Credential & skill combination (base=LCLS) | College credentials include only BA-level or above | | | | Supply of college-educated adults defined by % of non-immigrant children who exceeded their parents' education | | | |
|---|--|----------------------|----------------------|----------------------|--|----------------------|----------------------|----------------------|
| | Literacy | | Numeracy | | Literacy | | Numeracy | |
| | HCLS | HCHS | HCLS | HCHS | HCLS | HCHS | HCLS | HCHS |
| Gender (women=1) | 0.402*** (0.035) | 0.160** (0.050) | 0.494*** (0.035) | -0.225*** (0.050) | 0.461*** (0.032) | 0.221*** (0.045) | 0.541*** (0.032) | -0.186*** (0.045) |
| % college-educated adults | -0.034 (0.909) | 1.552 (0.943) | -0.019 (0.775) | 0.848 (0.803) | 3.108*** (0.822) | 4.998*** (0.885) | 3.299*** (0.690) | 3.597*** (0.741) |
| Tracking index | -0.197 (0.106) | -0.073 (0.112) | -0.229* (0.092) | 0.006 (0.095) | -0.153 (0.079) | 0.042 (0.087) | -0.153* (0.068) | 0.067 (0.073) |
| Gender*% college-educated adults | -0.561 (0.363) | -0.938 (0.510) | -0.243 (0.364) | -1.477** (0.514) | -0.644 (0.436) | -0.863 (0.639) | -0.498 (0.437) | -1.374* (0.638) |
| Gender* Tracking index | -0.143** (0.055) | -0.275*** (0.075) | -0.119* (0.056) | -0.246*** (0.074) | -0.155** (0.052) | -0.284*** (0.073) | -0.163** (0.052) | -0.229** (0.072) |
| var(country) | 0.115** (0.035) | | 0.079** (0.025) | | 0.054** (0.019) | | 0.034** (0.013) | |
| Individual and country-level controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Constant | -1.386*** (0.077) | -2.182*** (0.084) | -1.437*** (0.068) | -2.003*** (0.074) | -0.681*** (0.061) | -1.715*** (0.069) | -0.719*** (0.053) | -1.550*** (0.061) |

Source: PIACC data (N=24,075)

Notes: LCLS=low credentials and low skills, HCLS=high credentials and low skills, HCHS=high credentials and high skills.

Coefficients from equation predicting LCHS are not presented because of the small number of observations. Standard errors in parentheses. * p<0.05 ** p<0.01 ***p<0.001. Individual level predictors: parental status, age group, immigration status.

Country level predictors: GDP and purchasing power parity (PPP)

Appendix C (continued). Replications of Table 4 with Alternative Definitions of Key Variables

| Robustness check: Skill type: Credential & skill combination (base=LCLS) | Gender-specific share of educated adults | | | | High skills defined relative to the country (1 standard deviation above country mean) | | | |
|---|--|----------------------|----------------------|----------------------|--|----------------------|----------------------|----------------------|
| | Literacy | | Numeracy | | Literacy | | Numeracy | |
| | HCLS | HCHS | HCLS | HCHS | HCLS | HCHS | HCLS | HCHS |
| Gender (women=1) | 0.470*** (0.032) | 0.248*** (0.047) | 0.549*** (0.032) | -0.156*** (0.046) | 0.499*** (0.034) | 0.261*** (0.040) | 0.599*** (0.034) | -0.107** (0.041) |
| % college-educated adults | 2.282** (0.712) | 3.214*** (0.755) | 2.438*** (0.609) | 2.236*** (0.646) | 2.714*** (0.564) | 0.092 (0.589) | 2.927*** (0.558) | 0.136 (0.575) |
| Tracking index | -0.181* (0.084) | -0.035 (0.090) | -0.183* (0.073) | 0.008 (0.078) | -0.174* (0.068) | -0.140* (0.071) | -0.128 (0.067) | -0.192** (0.070) |
| Gender* % college-educated adults | -0.500 (0.335) | -1.018* (0.489) | -0.439 (0.336) | -1.270** (0.491) | -0.712* (0.351) | -0.740 (0.427) | -0.901* (0.352) | -1.383** (0.433) |
| Gender* Tracking index | -0.151** (0.050) | -0.306*** (0.071) | -0.165** (0.051) | -0.237*** (0.070) | -0.178*** (0.053) | -0.203** (0.063) | -0.202*** (0.053) | -0.232*** (0.064) |
| var(country) | 0.068** | (0.022) | 0.046** | (0.016) | 0.037** (0.014) | | 0.036** (0.013) | |
| Individual and country-level controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Constant | -0.735*** (0.063) | -1.791*** (0.070) | -0.772*** (0.056) | -1.606*** (0.063) | -0.879*** (0.053) | -1.380*** (0.057) | -0.907*** (0.052) | -1.282*** (0.056) |

Source: PIACC data (N=24,075)

Note: LCLS=low credentials and low skills, HCLS=high credentials and low skills, HCHS=high credentials and high skills.

Coefficients from equation predicting LCHS are not presented because of the small number of observations. Standard errors in parentheses. * p<0.05 ** p<0.01 ***p<0.001. Individual level predictors: parental status, age group, immigration status. Country level predictors: GDP and purchasing power parity (PPP)

**Appendix D. Coefficients from Multilevel Ordered Logit Model Predicting Income Quintile
(Figures 2 and 3) among Employed 30–39-year-olds in 26 Countries**

| | Skill type: Literacy skills | | Numeracy skills | |
|---|-----------------------------|-----------|-----------------|-----------|
| | Gender: | | Women | Men |
| | Model #: | 1 | 2 | 3 |
| <hr/> | | | | |
| Credentials and skills (LCLS=0) | | | | |
| LCHS | 0.347** | 0.163 | 0.282* | 0.348*** |
| | (0.108) | (0.085) | (0.115) | (0.075) |
| HCLS | 0.727*** | 0.701*** | 0.873*** | 0.750*** |
| | (0.046) | (0.047) | (0.045) | (0.047) |
| HCHS | 1.212*** | 1.123*** | 1.314*** | 1.245*** |
| | (0.069) | (0.070) | (0.071) | (0.065) |
| % college-educated adults | -1.667* | 0.069 | -1.202* | 0.364 |
| | (0.652) | (0.403) | (0.591) | (0.423) |
| Credentials and skills* % college-educated adults | | | | |
| LCHS * % college-educated adults | -0.413 | 0.735 | -1.844 | -1.345 |
| | (1.269) | (0.992) | (1.282) | (0.866) |
| HCLS * % college-educated adults | -0.954* | -1.539*** | -1.412*** | -2.231*** |
| | (0.417) | (0.411) | (0.409) | (0.422) |
| HCHS * % college-educated adults | -0.870 | -2.753*** | -1.226 | -2.332*** |
| | (0.666) | (0.693) | (0.711) | (0.630) |
| Tracking index | -0.164* | 0.127* | -0.124 | 0.135* |
| | (0.079) | (0.051) | (0.072) | (0.053) |
| Credentials and skills* Tracking index | | | | |
| LCHS * Tracking index | 0.009 | -0.109 | -0.126 | -0.149 |
| | (0.159) | (0.128) | (0.168) | (0.111) |
| HCLS * Tracking index | 0.021 | -0.009 | 0.006 | -0.037 |
| | (0.062) | (0.065) | (0.062) | (0.068) |
| HCHS * Tracking index | -0.013 | -0.114 | -0.099 | -0.124 |
| | (0.088) | (0.089) | (0.090) | (0.081) |
| Individual level controls: | Yes | Yes | Yes | Yes |
| Country level controls: | Yes | Yes | Yes | Yes |
| <i>Cutoff points:</i> | | | | |
| cut1 | 0.030 | -1.229*** | -0.281*** | -1.333*** |
| | (0.082) | (0.071) | (0.077) | (0.075) |
| cut2 | 1.501*** | 0.094 | 1.169*** | -0.019 |
| | (0.083) | (0.067) | (0.077) | (0.071) |
| cut3 | 2.720*** | 1.340*** | 2.385*** | 1.217*** |
| | (0.086) | (0.068) | (0.080) | (0.072) |
| cut4 | 4.126*** | 2.802*** | 3.795*** | 2.681*** |
| | (0.090) | (0.072) | (0.084) | (0.076) |
| <hr/> | | | | |
| var(constant) | 0.047** | 0.013* | 0.036** | 0.015* |
| | (0.016) | (0.006) | (0.013) | (0.007) |
| <hr/> | | | | |
| Chi2 | 3790.094 | 3097.555 | 3724.240 | 3075.904 |
| Degrees of freedom | 31.000 | 31.000 | 31.000 | 31.000 |
| Log likelihood | -16447 | -16962 | -16509 | -16967 |
| <hr/> | | | | |

Source: PIACC data (N=24,075). Based on information of employed adults ages 30-39 from 26 countries.

Note: Standard errors in parentheses. LCLS=low credentials and low skills, HCLS=high credentials and low skills, HCHS=high credentials and high skills. Individual-level controls: age group, parental education, immigration status, cohabitation, work experience, skilled occupation, and usage of relevant skill at work. Country-level factors: GDP, purchasing power parity, union density, share of government employed. * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Appendix E. Replication of Appendix C (Figures 2 and 3) with Alternative Definitions of Key Variables

A. Women - Literacy

| | Education includes BA or above only (no professional degrees included) | Supply of college-educated adults defined by the % of non-immigrants who exceeded their parents' education | Gender-specific % of educated adults | High skills defined relative to each country | Random slope for skills | Adjustment for skill level in numeracy | Without the utilization of skills |
|---|--|--|--------------------------------------|--|-------------------------|--|-----------------------------------|
| Robustness: | | | | | | | |
| Credential & skills (LCLS=0): | | | | | | | |
| LCHS | 0.374*** (0.090) | 0.338*** (0.103) | 0.334** (0.111) | 0.348*** (0.083) | 0.265* (0.131) | 0.200 (0.111) | 0.463*** (0.108) |
| HCLS | 0.953*** (0.050) | 0.707*** (0.046) | 0.724*** (0.046) | 0.695*** (0.049) | 0.709*** (0.083) | 0.718*** (0.046) | 0.949*** (0.045) |
| HCHS | 1.399*** (0.075) | 1.202*** (0.065) | 1.210*** (0.070) | 1.210*** (0.059) | 1.174*** (0.098) | 1.024*** (0.075) | 1.442*** (0.068) |
| % college-educated adults | -2.200** (0.739) | -2.785*** (0.817) | -2.083** (0.644) | -1.833** (0.630) | -1.856** (0.665) | -2.008** (0.679) | -1.419* (0.571) |
| Credential & skills* % college-educated adults | | | | | | | |
| LCHS*% college-educated adults | -0.583 (0.951) | -0.365 (1.618) | 0.120 (1.373) | -0.595 (0.836) | 0.254 (1.552) | -0.340 (1.270) | -0.103 (1.283) |
| HCLS*% college-educated adults | 0.055 (0.433) | -1.071* (0.540) | -0.703 (0.421) | -0.952* (0.444) | -0.840 (0.896) | -0.988* (0.417) | -1.795*** (0.410) |
| HCHS* % college-educated adults | -0.256 (0.702) | -1.527 (0.854) | -0.674 (0.702) | -0.261 (0.550) | -0.185 (1.116) | -0.788 (0.667) | -1.798** (0.661) |
| Tracking index | -0.189* (0.088) | -0.208** (0.080) | -0.209* (0.084) | -0.173* (0.076) | -0.182* (0.083) | -0.184* (0.082) | -0.134 (0.070) |
| Credential & skills X Tracking | | | | | | | |
| LCHS X Tracking | -0.059 | 0.018 | 0.057 | -0.020 | 0.076 | 0.011 | 0.007 |

| | | | | | | | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|
| | (0.117) | (0.168) | (0.185) | (0.115) | (0.193) | (0.159) | (0.161) |
| HCLS X Tracking | 0.055 | 0.027 | 0.031 | -0.030 | 0.048 | 0.016 | -0.007 |
| | (0.069) | (0.064) | (0.066) | (0.066) | (0.118) | (0.062) | (0.062) |
| HCHS X Tracking | 0.076 | -0.045 | -0.010 | 0.066 | 0.012 | -0.021 | -0.071 |
| | (0.094) | (0.091) | (0.098) | (0.077) | (0.136) | (0.088) | (0.087) |
| High numeracy skills | | | | | | 0.368*** | |
| | | | | | | (0.059) | |
| <i>Cutoff points</i> | | | | | | | |
| cut1 | 0.869** | 0.999*** | 1.063*** | 0.975*** | 1.084*** | 0.996*** | 0.535** |
| | (0.268) | (0.227) | (0.235) | (0.221) | (0.176) | (0.241) | (0.198) |
| cut2 | 2.343*** | 2.469*** | 2.534*** | 2.446*** | 2.556*** | 2.469*** | 1.939*** |
| | (0.269) | (0.229) | (0.236) | (0.222) | (0.178) | (0.242) | (0.199) |
| cut3 | 3.582*** | 3.689*** | 3.754*** | 3.669*** | 3.778*** | 3.692*** | 3.117*** |
| | (0.270) | (0.230) | (0.238) | (0.223) | (0.179) | (0.244) | (0.200) |
| cut4 | 5.019*** | 5.095*** | 5.159*** | 5.079*** | 5.187*** | 5.102*** | 4.493*** |
| | (0.272) | (0.232) | (0.239) | (0.225) | (0.182) | (0.245) | (0.202) |
| Country-level variance | 0.067** | 0.045** | 0.050** | 0.041** | 0.058*** | 0.052** | 0.033** |
| | (0.021) | (0.015) | (0.016) | (0.014) | (0.014) | (0.017) | (0.012) |

Source: PIACC data (N=24,075). Based on information of employed adults aged 30-39 from 26 countries.

Note: Standard errors in parentheses. LCLS=low credentials and low skills, HCLS=high credentials and low skills, HCHS=high credentials and high skills. Individual-level controls: age group, parental education, immigration status, cohabitation, work experience, skilled occupation. Country-level factors: GDP, purchasing power parity, union density, share of government employed. * p<0.05 ** p<0.01 ***p<0.001

B. Women - Numeracy

| | Education includes BA or above only (no professional degrees included) | Supply of college-educated adults defined by the % of non-immigrants who exceeded their parents' education | Gender-specific % of educated adults | High skills defined relative to each country | Random slope for skills | Adjustment for skill level in numeracy | Without the utilization of skills |
|--|--|--|--------------------------------------|--|-------------------------|--|-----------------------------------|
| Robustness: | | | | | | | |
| Credential & skills (LCLS=0): | | | | | | | |
| LCHS | 0.340*** (0.091) | 0.245* (0.114) | 0.299* (0.117) | 0.290** (0.099) | 0.206 (0.132) | 0.139 (0.118) | 0.411*** (0.115) |
| HCLS | 1.092*** (0.049) | 0.843*** (0.045) | 0.875*** (0.045) | 0.842*** (0.047) | 0.843*** (0.075) | 0.860*** (0.045) | 0.945*** (0.045) |
| HCHS | 1.485*** (0.076) | 1.289*** (0.067) | 1.302*** (0.072) | 1.366*** (0.063) | 1.277*** (0.093) | 1.134*** (0.077) | 1.510*** (0.070) |
| % college-educated adults | -1.710* (0.694) | -2.155** (0.742) | -1.568** (0.584) | -1.442* (0.580) | -1.333* (0.597) | -1.560* (0.628) | -1.307* (0.565) |
| Credential & skills* % college-educated adults | | | | | | | |
| LCHS*% college-educated adults | -1.514 (0.974) | -2.468 (1.617) | -2.176 (1.327) | -1.125 (0.963) | -1.338 (1.483) | -2.027 (1.288) | -1.637 (1.291) |
| HCLS* % college-educated adults | -0.475 (0.423) | -1.673** (0.531) | -1.344** (0.414) | -1.170** (0.430) | -1.586* (0.804) | -1.491*** (0.409) | -1.850*** (0.406) |
| HCHS*% college-educated adults | -0.477 (0.757) | -1.592 (0.908) | -0.808 (0.741) | -1.016 (0.580) | -0.792 (1.046) | -1.346 (0.712) | -1.558* (0.707) |
| Tracking index | -0.150 (0.083) | -0.163* (0.073) | -0.156* (0.077) | -0.130 (0.070) | -0.145 (0.075) | -0.137 (0.076) | -0.137* (0.069) |
| Credential & skills X tracking | | | | | | | |
| LCHS X Tracking | -0.153 (0.121) | -0.155 (0.176) | -0.194 (0.186) | -0.060 (0.137) | -0.080 (0.191) | -0.118 (0.168) | -0.074 (0.169) |
| HCLS X Tracking | 0.042 (0.068) | 0.008 (0.063) | -0.008 (0.066) | 0.022 (0.063) | 0.020 (0.106) | 0.008 (0.062) | -0.011 (0.061) |
| HCHS X Tracking | -0.007 (0.098) | -0.107 (0.093) | -0.082 (0.101) | -0.059 (0.084) | -0.021 (0.127) | -0.096 (0.090) | -0.111 (0.090) |

| | | | | | | | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|
| High literacy skills | | | | | | 0.315*** | |
| | | | | | | (0.055) | |
| <i>Cutoff points</i> | | | | | | | |
| cut1 | 0.393 | 0.544** | 0.611** | 0.558** | 0.600*** | 0.600** | 0.477* |
| | (0.252) | (0.207) | (0.213) | (0.204) | (0.163) | (0.223) | (0.196) |
| cut2 | 1.844*** | 1.993*** | 2.061*** | 2.007*** | 2.050*** | 2.052*** | 1.880*** |
| | (0.253) | (0.207) | (0.213) | (0.205) | (0.164) | (0.224) | (0.197) |
| cut3 | 3.081*** | 3.209*** | 3.277*** | 3.226*** | 3.267*** | 3.270*** | 3.061*** |
| | (0.254) | (0.209) | (0.215) | (0.206) | (0.166) | (0.225) | (0.198) |
| cut4 | 4.528*** | 4.619*** | 4.687*** | 4.643*** | 4.681*** | 4.683*** | 4.441*** |
| | (0.256) | (0.211) | (0.217) | (0.208) | (0.168) | (0.227) | (0.200) |
| Country-level variance | 0.058** | 0.035** | 0.038** | 0.033** | 0.043*** | 0.043** | 0.032** |
| | (0.019) | (0.013) | (0.013) | (0.012) | (0.012) | (0.015) | (0.011) |

Source: PIACC data (N=24,075). Based on information of employed adults aged 30-39 from 26 countries.

Note: Standard errors in parentheses. LCLS=low credentials and low skills, HCLS=high credentials and low skills, HCHS=high credentials and high skills. Individual-level controls: age group, parental education, immigration status, cohabitation, work experience, skilled occupation. Country-level factors: GDP, purchasing power parity, union density, share of government employed. * p<0.05 ** p<0.01 ***p<0.001

C. Men - Literacy

| | Education includes BA or above only (no professional degrees included) | Supply of college-educated adults defined by the % of non-immigrants who exceeded their parents' education | Gender-specific % of educated adults | High skills defined relative to each country | Random slope for skills | Adjustment for skill level in numeracy | Without utilization of skills |
|---|--|--|--------------------------------------|--|-------------------------|--|-------------------------------|
| Robustness: | | | | | | | |
| Credential & skills (LCLS=0): | | | | | | | |
| LCHS | 0.221** (0.077) | 0.184* (0.082) | 0.186* (0.082) | 0.242*** (0.069) | 0.174 (0.091) | -0.077 (0.090) | 0.301*** (0.085) |
| HCLS | 0.828*** (0.053) | 0.670*** (0.047) | 0.676*** (0.046) | 0.698*** (0.050) | 0.698*** (0.057) | 0.672*** (0.047) | 0.872*** (0.046) |
| HCHS | 1.179*** (0.077) | 1.061*** (0.066) | 1.057*** (0.066) | 1.054*** (0.059) | 1.121*** (0.077) | 0.857*** (0.076) | 1.294*** (0.069) |
| % college-educated adults | -0.289 (0.326) | -0.576 (0.440) | -0.406 (0.367) | 0.021 (0.381) | -0.315 (0.380) | -0.265 (0.371) | 0.009 (0.414) |
| Credential & skills* % college-educated adults | | | | | | | |
| LCHS*% college-educated adults | -0.001 (0.816) | 0.506 (1.256) | 0.957 (0.872) | -1.362* (0.688) | 0.653 (1.074) | 0.761 (0.990) | 0.310 (0.992) |
| HCLS*% college-educated adults | -1.193* (0.468) | -2.025*** (0.537) | -1.441*** (0.389) | -1.640*** (0.451) | -1.329* (0.561) | -1.578*** (0.411) | -2.007*** (0.409) |
| HCHS*% college-educated adults | -2.098** (0.747) | -3.232*** (0.882) | -2.238*** (0.612) | -1.902*** (0.536) | -2.719*** (0.822) | -2.904*** (0.692) | -3.223*** (0.691) |
| Tracking index | 0.087* (0.042) | 0.097* (0.046) | 0.106* (0.044) | 0.123* (0.048) | 0.105* (0.049) | 0.100* (0.047) | 0.120* (0.052) |
| Credential & skills X Tracking | | | | | | | |
| LCHS X Tracking | -0.081 (0.105) | -0.137 (0.134) | -0.116 (0.113) | -0.152 (0.101) | -0.122 (0.137) | -0.112 (0.128) | -0.131 (0.128) |
| HCLS X Tracking | 0.086 (0.075) | -0.022 (0.066) | 0.029 (0.060) | -0.000 (0.070) | -0.001 (0.079) | -0.015 (0.065) | -0.009 (0.065) |

| | | | | | | | |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| HCHS X Tracking | -0.054 (0.098) | -0.125 (0.092) | -0.037 (0.081) | -0.085 (0.077) | -0.123 (0.101) | -0.127 (0.089) | -0.111 (0.089) |
| High numeracy skills | | | | | | 0.462*** (0.052) | |
| <i>Cutoff points</i> | | | | | | | |
| cut1 | -0.550*** (0.134) | -0.519*** (0.136) | -0.521*** (0.144) | -0.516*** (0.146) | -0.522*** (0.129) | -0.501*** (0.145) | -0.717*** (0.155) |
| cut2 | 0.771*** (0.133) | 0.804*** (0.134) | 0.802*** (0.143) | 0.808*** (0.144) | 0.801*** (0.128) | 0.824*** (0.144) | 0.578*** (0.154) |
| cut3 | 2.014*** (0.134) | 2.050*** (0.136) | 2.048*** (0.144) | 2.056*** (0.146) | 2.048*** (0.129) | 2.074*** (0.145) | 1.786*** (0.154) |
| cut4 | 3.479*** (0.137) | 3.512*** (0.138) | 3.510*** (0.146) | 3.519*** (0.148) | 3.511*** (0.131) | 3.544*** (0.147) | 3.215*** (0.156) |
| Country-level variance | 0.006 (0.004) | 0.007 (0.005) | 0.009 (0.005) | 0.010 (0.005) | 0.012* (0.006) | 0.009 (0.005) | 0.014* (0.007) |

Source: PIACC data (N=24,075). Based on information of employed adults aged 30-39 from 26 countries.

Note: Standard errors in parentheses. LCLS=low credentials and low skills, HCLS=high credentials and low skills, HCHS=high credentials and high skills. Individual-level controls: age group, parental education, immigration status, cohabitation, work experience, skilled occupation. Country-level factors: GDP, purchasing power parity, union density, share of government employed. * p<0.05 ** p<0.01 ***p<0.001

D. Men - Numeracy

| | Education includes BA or above only (no professional degrees included) | Supply of college-educated adults defined by the % of non-immigrants who exceeded their parents' education | Gender-specific % of educated adults | High skills defined relative to each country | Random slope for skills | Adjustment for skill level in numeracy | Without the utilization of skills |
|---|--|--|--------------------------------------|--|-------------------------|--|-----------------------------------|
| Robustness: | | | | | | | |
| Credential & skills (LCLS=0): | | | | | | | |
| LCHS | 0.374*** (0.090) | 0.321*** (0.074) | 0.334** (0.111) | 0.348*** (0.083) | 0.265* (0.131) | 0.200 (0.111) | 0.463*** (0.108) |
| HCLS | 0.953*** (0.050) | 0.705*** (0.047) | 0.724*** (0.046) | 0.695*** (0.049) | 0.709*** (0.083) | 0.718*** (0.046) | 0.949*** (0.045) |
| HCHS | 1.399*** (0.075) | 1.196*** (0.062) | 1.210*** (0.070) | 1.210*** (0.059) | 1.174*** (0.098) | 1.024*** (0.075) | 1.442*** (0.068) |
| % college-educated adults | -2.200** (0.739) | -0.239 (0.473) | -2.083** (0.644) | -1.833** (0.630) | -1.856** (0.665) | -2.008** (0.679) | -1.419* (0.571) |
| Credential & skills* % college-educated adults | | | | | | | |
| LCHS*% college-educated adults | -0.583 (0.951) | -1.674 (1.086) | 0.120 (1.373) | -0.595 (0.836) | 0.254 (1.552) | -0.340 (1.270) | -0.103 (1.283) |
| HCLS*% college-educated adults | 0.055 (0.433) | -2.867*** (0.553) | -0.703 (0.421) | -0.952* (0.444) | -0.840 (0.896) | -0.988* (0.417) | -1.795*** (0.410) |
| HCHS*% college-educated adults | -0.256 (0.702) | -2.756*** (0.804) | -0.674 (0.702) | -0.261 (0.550) | -0.185 (1.116) | -0.788 (0.667) | -1.798** (0.661) |
| Tracking index | -0.189* (0.088) | 0.105* (0.049) | -0.209* (0.084) | -0.173* (0.076) | -0.182* (0.083) | -0.184* (0.082) | -0.134 (0.070) |
| Credential & skills X Tracking | | | | | | | |

| | | | | | | | |
|------------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| LCHS X Tracking | -0.059 (0.117) | -0.161 (0.114) | 0.057 (0.185) | -0.020 (0.115) | 0.076 (0.193) | 0.011 (0.159) | 0.007 (0.161) |
| HCLS X Tracking | 0.055 (0.069) | -0.051 (0.070) | 0.031 (0.066) | -0.030 (0.066) | 0.048 (0.118) | 0.016 (0.062) | -0.007 (0.062) |
| HCHS X Tracking | 0.076 (0.094) | -0.128 (0.084) | -0.010 (0.098) | 0.066 (0.077) | 0.012 (0.136) | -0.021 (0.088) | -0.071 (0.087) |
| High literacy skills | | | | | | 0.368*** (0.059) | |
| <i>Cutoff points</i> | | | | | | | |
| cut1 | 0.869** (0.268) | -0.631*** (0.146) | 1.063*** (0.235) | 0.975*** (0.221) | 1.084*** (0.176) | 0.996*** (0.241) | 0.535** (0.198) |
| cut2 | 2.343*** (0.269) | 0.683*** (0.144) | 2.534*** (0.236) | 2.446*** (0.222) | 2.556*** (0.178) | 2.469*** (0.242) | 1.939*** (0.199) |
| cut3 | 3.582*** (0.270) | 1.918*** (0.145) | 3.754*** (0.238) | 3.669*** (0.223) | 3.778*** (0.179) | 3.692*** (0.244) | 3.117*** (0.200) |
| cut4 | 5.019*** (0.272) | 3.382*** (0.148) | 5.159*** (0.239) | 5.079*** (0.225) | 5.187*** (0.182) | 5.102*** (0.245) | 4.493*** (0.202) |
| Country-level variance | 0.067** (0.021) | 0.009 (0.005) | 0.050** (0.016) | 0.041** (0.014) | 0.058*** (0.014) | 0.052** (0.017) | 0.033** (0.012) |

Source: PIACC data (N=24,075). Based on information of employed adults aged 30-39 from 26 countries.

Note: Standard errors in parentheses. LCLS=low credentials and low skills, HCLS=high credentials and low skills, HCHS= high credentials and high skills. Individual-level controls: age group, parental education, immigration status, cohabitation, work experience, skilled occupation. Country-level factors: GDP, purchasing power parity, union density, share of government employed. * p<0.05 ** p<0.01 ***p<0.001

Appendix F: Proportion of Educated Men and Women with High Literacy or Numeracy Skills, by Field of Study

| Skill domain: Gender: | Prop. educated adults with high literacy skills | | | Prop. educated adults with high numeracy skills | | |
|---|---|------|--------------------|---|------|--------------------|
| | Women | Men | Δ women-men | Women | Men | Δ women-men |
| Field of study in highest qualification: | | | | | | |
| General programs | 0.24 | 0.20 | 0.05 | 0.12 | 0.13 | -0.01 |
| Teacher training and education science | 0.24 | 0.16 | 0.08 | 0.16 | 0.19 | -0.03 |
| Humanities, languages and arts | 0.31 | 0.31 | 0.00 | 0.24 | 0.18 | 0.06 |
| Social sciences, business and law | 0.24 | 0.38 | -0.14 | 0.20 | 0.39 | -0.20 |
| Science, mathematics and computing | 0.30 | 0.36 | -0.06 | 0.28 | 0.42 | -0.13 |
| Engineering, manufacturing and construction | 0.33 | 0.30 | 0.03 | 0.29 | 0.39 | -0.10 |
| Agriculture and veterinary | 0.31 | 0.35 | -0.04 | 0.24 | 0.42 | -0.19 |
| Health and welfare | 0.19 | 0.29 | -0.10 | 0.16 | 0.24 | -0.08 |
| Services | 0.12 | 0.15 | -0.03 | 0.16 | 0.13 | 0.03 |

Source: PIACC data (N=24,075). Based on information of employed

adults aged 30-39 from 26 countries.

Note: The difference is calculated as women-men, so positive values indicate women's advantage, while negative values indicate men's advantage. Differences greater than ten percentage points are highlighted in bold.