Gender difference in human capital accumulation and utilization

An international perspective

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Human capital accumulation may explain gender gaps...

- The literature uses educational attainment or work experiences as a proxy of levels of human capital
- Our paper focuses on gender gaps in skill-utilization
Human capital accumulation

Traditional interest is on human capital accumulation and its process

- Accumulation process and market evaluation of human capital (Becker, Mincer, Heckman)
- Effects on economic growth (Hanushek and Woessmann (2008), Hanushek and Woessmann (2012))

Under sufficient stock of human capital, its price declines so that it is fully utilized
Utilization of human capital

However, some people may not take advantage of their skill, despite high levels of skill possession

- Mismatch between education and required skill for jobs (Machin and McNally (2007))


- Many studies measure skill-utilization relying on subjective evaluation

- We need objective measure: years of education or work experiences is used as a proxy → Mincer wage equation (Hanushek et al. (2015))
Gender identity and labor market outcomes of females

- Deviation from one’s own gender identity causes anxiety, discomfort or ambivalence (Akerlof and Kranton (2000))
- There exist barriers to prevent wives from earning more than their husbands (Bertrand et al. (2015))
  - Wife’s earnings exceeding her husband’s result in low satisfaction with marriage and high divorce rates
- Female labor force participation rates decline as social norms toward traditional gender roles became strong (Fortin (2005))
Main findings

- We studied how utilization of female skill related with social norms and social institutions, with objective skill-utilization measure.
- Strong social norms toward traditional gender roles suppressed female skill-utilization.
- Long maternal leave system and strict employment protection exacerbated under-utilization of female skill.
- Public sector and service sector provided better job opportunities for skilled females, as well as labor union.
- These effects of social norms and social institutions were more crucial for females with a child.
Programme for the International Assessment of Adult Competencies (PIAAC)

- A main purpose is measurement of cognitive and workplace skill of adults
- PIAAC was conducted in 38 countries with OECD countries and OECD partners
- People aged 16–65 took tests for their cognitive skill
  - literacy, numeracy, problem solving with ICT
  - Respondents were assigned two sections, at most
- Questions about skill-use at work as well as background information
Examples of test questions

• Literacy
  ▶ Read preschool rules
  ▶ Read instruction about physical exercise equipment

• Numeracy
  ▶ Calculate the number of wind power stations
  ▶ Interpret the time series graph of births in the United States

• Problem solving with ICT
  ▶ Look for web sites for job search
Skill index

- We computed skill index for each respondent by the two parameter logistic model.
- The probability that a respondent provides the correct answer depends on his/her ability, $\theta_i$, and discrimination, $a_j$, and difficulty, $b_j$, of $j$th question:

$$
\Pr(y_{ij} = 1 \mid a_j, b_j, \theta_i) \equiv \frac{\exp \left( a_j (\theta_i - b_j) \right)}{1 + \exp \left( a_j (\theta_i - b_j) \right)}
$$

- The prior distribution of $\theta_i$ is standard normal
- After estimating $a_j$’s and $b_j$’s by MLE, $\hat{\theta}_i$ was calculated as Baysian mean predictor.
Skill-use at work: Literacy

- Read directions or instructions
- Read letters, memos or e-mails
- Read articles in newspapers, magazines or newsletters
- Read articles in professional journals or scholarly publications
- Read books
- Read manuals or reference materials
- Read bills, invoices, bank statements or other financial statements
- Read diagrams, maps or schematics
Skill-use at work: Numeracy

- Calculate prices, costs or budgets
- Use or calculate fractions, decimals or percentages
- Use a calculator - either hand-held or computer based
- Use simple algebra or formulas
- Use more advanced math or statistics such as calculus, complex algebra, trigonometry or use of regression techniques
- Prepare charts, graphs or tables
Skill-use at work: ICT

• Use email
• Use the Internet in order to better understand issues related to your work
• Conduct transactions on the Internet, for example buying or selling products or services, or banking
• Use spreadsheet software, for example Excel
• Use a word processor, for example Word
• Use a programming language to program or write computer code
• Participate in real-time discussions on the internet, for example online conferences, or chat groups
Skill-use index

• Possible responses are
  1. Never
  2. Less than once a month
  3. Less than once a week but at least once a month
  4. At least once a week but not every day
  5. Every day

• This assures that our measure of skill-use is objective to some extent

• We calculated skill-use index by general partial credit model, which is a generalization of the two parameter logistic model
Mismatch in skill and skill-use

• In order to measure the degree of mismatch in skill possession and skill-use, we defined mismatch indicator as a difference between percentile of skill-use and percentile of skill within each country:

\[
\text{Mismatch} = \text{Percentile}(\text{SkillUse}) - \text{Percentile}(\text{Skill})
\]

• Positive value $\rightarrow$ over-utilization

• Negative value $\rightarrow$ under-utilization.

• Skill-use of people out of labor force was set as the lowest percentile since they do not use their skill in market.
Note on indicator for problem solving skill

- Indices related with problem solving skill need care because those who could not use computer skipped problem solving test section
- Since it may bring serious selection biases, we regard analyses using this indicator as supplemental ones
  - Results for problem solving skill were confounding and inconsistent with results for literacy or numeracy skill in some cases
  - On the other hand, results for literacy skill and numeracy skill were consistent with each other throughout analyses
Sample restriction

- Our focus is on prime age adults between 25–59 at the time of survey
- We excluded full-time students and those who are permanently disabled as well as observations with missing values in variables for our analysis
- Data of Australia and Indonesia were not provided for public-use, and data of Russia did not include residents in Moscow, so we used the remaining 30 countries from PIAAC Round 1 and 2
- Scientific-Use File of Germany data were provided from GESIS
Gender gaps in skill, skill-use and mismatch

- Males tended to be more able than females with respect to each skill.
- Differences in literacy skill were relatively small while differences in numeracy skill were large.
- Males used each skill more often than females, but gender gaps were small in ex-communist countries.
- As for mismatch, female skill tended to be under-utilized.
  - Gender gaps came from labor force participation and mis-allocation within labor market.
  - Gaps were striking in Japan, Korea and Turkey.
  - Some ex-communist countries were exceptional.
Literacy skill and labor force participation rates

Graphs by group(cntryid)
Literacy skill and skill-use within labor force

Graphs by group(cntryid)
Numeracy skill and labor force participation rates

Graphs by group(cntryid)
Numeracy skill and skill-use within labor force

Graphs by group(cntryid)
Problem solving/ICT skill and labor force participation rates

Graphs by group(cntryid)
Problem solving/ICT skill and skill-use within labor force
Skill and labor force participation rates

- One source of under-utilization of female skill is non-participation of skilled females in labor force
- Female employment rates were lower than male rates
- In some countries such as Belgium, Denmark and Sweden, female labor force participation was progressive with respect to each skill
- In other countries such as Japan and Korea, female labor force participation was non-progressive
Skill and skill-use within labor force

- Another source is mis-allocation within labor market
- In most countries, gender gaps in skill-use within labor force were small
- However, the gaps were large in Asian countries and in North European countries
- Females tend to intensively use their skill than males at each given skill level in ex-communist countries
Social norms and social institutions I

Priority of men

When jobs are scarce, men should have more right to a job than women: Agree = 1, Neither = 0, Disagree = -1

We took an average within each countries (from World Values Survey and European Values Survey)

Wife’s housework (HW) share

Average share of housework done by a wife

(from International Social Survey Programme)

Paternal leave

The length of paid paternal leave for mothers (from PIAAC)

Employment protection
Social norms and social institutions II

The strictness of employment protection against individual and collective dismissal of employees on regular contract
(from OECD database)

**Union density**
Share of wage and salary earners who belong to trade union
(from OECD database)

**Public sector density**
Share of workers in public sector (from PIAAC)

**Service sector density**
Share of workers in service sector (from PIAAC)
Female skill and labor force participation

- In some country, skilled females are more likely to participate in labor force than non-skilled females while not in other countries.
- The degree of such tendencies may depend on social norms and social institutions.
- To reveal their relationships, we estimated:

\[ \text{Work}_{ij} = \beta^s_j \text{Skill}_{ij} + X_{ij} \beta^x_j + d_j + u_{ij} \]
\[ \beta^f_j = \gamma_0 + \gamma_1 \text{Index}_{ij} + \gamma_2 \text{ExCommunist}_j + \nu_j \]

- \( \text{Work}_{ij} \) was a dummy variable indicating labor force participation, and \( X_{ij} \) included age and years of education.
## Female skill and labor force participation

### Literacy: All females

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### Numeracy: All females

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<tr>
<td>Skill</td>
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<td>Skill × Index</td>
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<td>-0.135***</td>
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<td>Skill × ExCommunist</td>
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<td>0.019**</td>
<td>0.019**</td>
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* * p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
In an average country, 1 SD increases in literacy and numeracy skill raised female employment rates by 1.2–1.9 and 1.7–2.0 percentage point, respectively.

Social norms toward traditional gender roles tended to suppress labor force participation of skilled females with respect to literacy and numeracy.

It may be due to gender identity or gender discrimination:

- Employers may not want to hire a female for well-paid “male” jobs, or she feels discomfort while working in such jobs (Akerlof and Kranton (2000)).
- Statistical discrimination limits market opportunities.
Female skill and labor force participation II

- Differences in these two indicators for social norms between Japan and Sweden led 2% and 5% declines in the marginal effect of skill on labor force participation.

- Long parental leave system did not affect the degree of assortative sorting.
  - However, it may increase female employment rates.

- Strict employment protection also prevented participation of skilled females.
  - Statistical discrimination may reduce job opportunities for skilled females.
  - Strict employment protection allow non-skilled females who were otherwise dismissed to stay at their jobs.
Female skill and labor force participation III

- A large labor union, public sector and service sector encouraged participation of skilled females
  - Labor union may help provide gender-equal workplace environment, so skilled females benefit from it
  - Public and service sectors requires less motor skill but more cognitive and non-cognitive

- In terms of problem solving with ICT, we found no significant effects of social norms or social institutions

- This may be due to selection biases...
  - Those who could not use computer did not take this test section
## Participation of females with a child

### Literacy: Females with a child

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<td>0.012***</td>
<td>0.014**</td>
<td>0.013***</td>
<td>0.014**</td>
<td>0.014***</td>
<td>0.010**</td>
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<td>Skill × Index</td>
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<td>-0.243***</td>
<td>0.000</td>
<td>-0.020**</td>
<td>0.051**</td>
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<td>Skill × ExCommunist</td>
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<td>-0.011</td>
<td>-0.010</td>
<td>-0.007</td>
<td>-0.009*</td>
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### Numeracy: Females with a child

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<tbody>
<tr>
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<td>0.017***</td>
<td>0.019***</td>
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<td>0.018***</td>
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<td>0.016***</td>
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<td>Skill × Index</td>
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<td>0.015*</td>
<td>0.015*</td>
<td>0.013**</td>
<td>0.032***</td>
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**Observations**: 26507 26101 31216 29173 29173 31836 31836

**Countries**: 28 24 29 27 27 30 30

* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
Participation of females with a child

- When we restricted sample to females with a child, we basically found the same results.
- The magnitude of the effects of social norms and social institutions became greater.
- Females seem to become more sensitive to social norms and social institutions after childbearing.
  - Job opportunities are more limited after childbearing, decreasing market advantage of skilled females.
  - Participation decision of skilled females may depend heavily on their work conditions.
Utilization of female skill

- Skill-utilization was captured through match of skill and skill-use:

\[ \text{Mismatch} = \text{Percentile(} \text{SkillUse} \text{)} - \text{Percentile(} \text{Skill} \text{)} \]

- Skill-use for non-participants was set as the lowest percentile

- The empirical model was

\[ \text{Mismatch}_{ij} = \beta_j^f \text{Female}_{ij} + X_{ij}\beta_j^x + d_j + u_{ij} \]

\[ \beta_j^f = \gamma_0 + \gamma_1 \text{Index}_j + \gamma_2 \text{ExCommunist}_j + v_j \]
## Utilization (P(use) - P(skill))

### Literacy skill

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<td>Female × ExCommunist</td>
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| Observations | 64857 | 63339 | 75412 | 71053 | 71053 | 77420 | 77420 |
| Countries    | 28    | 24    | 29    | 27    | 27    | 30    | 30    |

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<td>(0.007)</td>
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| Observations | 52167 | 51286 | 60667 | 57226 | 57226 | 62373 | 62373 |
| Countries    | 28    | 24    | 29    | 27    | 27    | 30    | 30    |

* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
## Utilization (P(use) - P(skill))

### Numeracy skill

**Full sample**

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**Labor force participants**

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<tr>
<td>Female × Index</td>
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* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
## Utilization (P(use) - P(skill))

### Problem solving/ICT skill

#### Full sample

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#### Labor force participants

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* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
Utilization of female skill I

With the entire sample estimation...

- Strong social norms toward traditional gender roles resulted in under-utilization of female skill
  - Less market opportunities for skilled females
  - Gender identity
  - To avoid earning more than their spouses (Bertrand et al. (2015))

- A large labor union, public sector and service sector tended to mitigate under-utilization
  - As shown earlier, these institutions encouraged skilled females to participation in labor force
Utilization of female skill II

- Thus, they seem to provide better workplace environment for skilled females

  • Ex-communist countries seem to have better institutions to take advantage of female skill
    - It may be due to demand from labor intensive industry in era of communists (Campa et al. (2015))

With sample restriction to labor force participants...

  • Effects of social norms toward gender roles on utilization of female literacy skill remained, though the size of estimates became smaller
  • Effects of other social institutions disappeared
Utilization of female skill III

- Those effects may be driven by female labor force participation decision, or
- It is due to self-selection biases

- The effects of public and service sectors seem to suffer from measurement errors
  - Important for individual skill-utilization is whether one works in these sectors or not
  - Thus, we later used dummy variables indicating it, instead of the average fractions
Note on interpretation of the results

- Did most effects come from labor force participation?
  - Maybe yes... But Petrongolo and Olivetti (2008) suggest serious self-selection issues

- Subsample analysis was at the cost of self-selection biases
  - Females in labor force may be fortunate enough to have better market opportunities
  - This self-selection is likely to be observed in a country with low female labor force participation
  - Mismatch within labor market will be under-evaluated

- Thus, we preferred the results from the entire sample because they illustrate, at least, under-utilization of female skill as a whole
Effects of public and service sector on utilization of female literacy skill

- We investigated effects of public and service sectors, using dummy variables indicating whether one works in these sectors or not:

\[ \text{Mismatch}_{ij} = \beta^f_j \text{Female}_{ij} + \beta^s_j \text{Sector}_{ij} + X_{ij}\beta^x_j + d_j + u_{ij}, \]

\[ \beta^f_j = \gamma_0 + \gamma_1 \text{Sector}_{ij} + \gamma_2 \text{ExCommunist}_j + v_j, \]

- We may or may not include interaction term of a female dummy variable and an index for social norms toward gender roles
## Effects of public and service sector on utilization of female literacy skill

<table>
<thead>
<tr>
<th>Sector</th>
<th>Public sector</th>
<th>Service sector</th>
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</tbody>
</table>

* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
Effects of public and service sectors

• Females in these sectors well utilize literacy skill
• The public sector increased utilization of female literacy skill by 2.6 percentile while the service sector increased by 3.8 percentile
• Effects on numeracy skill were not found while effects on ICT skill were negative, within labor force
• These effects were invariant after controlling for social norms toward gender roles
  ▶ The effect of the public sector became insignificant when “Priority of men” was included
Effects of public and service sectors II

- But the estimate was positive with p-value of 0.100
- Thus, effects of the public and service sectors were not spurious correlation driven by social norms
- Therefore, these sectors seem to provide better job opportunities for skilled females
- The implication did not change when we allowed the coefficient to be different across countries
What are characteristics of public and service sectors?

- According to our data, females in these sectors tended to have higher cognitive skill than females in other sectors.
- These sectors turned out to intensively use literacy of females but not numeracy skill.
- Typical jobs of females in public sector are:
  - Teaching professionals
  - Personal care workers
  - Health professionals
- Thus, our argument that these sectors provide good job opportunities for skilled females is well supported by these observations.
Skill-utilization of individuals with a child

• Social norms and social institutions may be more critical for females with a child
  ▶ Childbearing need maternal leaves
  ▶ Childcare is time-consuming and traditionally though of as feminine work

• We estimated the following model with the subsample of individuals with a child:

\[
Mismatch_{ij} = \beta^f_j \text{Female}_{ij} + X_{ij} \beta^x_j + d_j + u_{ij}
\]

\[
\beta^f_j = \gamma_0 + \gamma_1 \text{Index}_j + \gamma_2 \text{ExCommunist}_j + v_j
\]
## Utilization of females with a child: Literacy

### Individuals with a child

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<tr>
<td><strong>Female</strong></td>
<td>-0.139***</td>
<td>-0.117***</td>
<td>-0.114***</td>
<td>-0.117***</td>
<td>-0.121***</td>
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<td>(0.010)</td>
<td>(0.014)</td>
<td>(0.014)</td>
<td>(0.014)</td>
<td>(0.009)</td>
<td>(0.016)</td>
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<tr>
<td><strong>Female × Index</strong></td>
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<td>-0.882***</td>
<td>0.017</td>
<td>-0.014</td>
<td>0.193***</td>
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<td>(0.058)</td>
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<td>(0.349)</td>
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<tr>
<td><strong>Female × ExCommunist</strong></td>
<td>0.084***</td>
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<td>(0.024)</td>
<td>(0.038)</td>
<td>(0.025)</td>
<td>(0.031)</td>
<td>(0.014)</td>
<td>(0.050)</td>
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Observations: 47196, 46859, 55439, 52183, 52183, 56650, 56650
Countries: 28, 24, 29, 27, 27, 30, 30

* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.

### Individuals with a child: Labor force participants

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<td>-0.050***</td>
<td>-0.048***</td>
<td>-0.048***</td>
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<td>(0.006)</td>
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<td>(0.005)</td>
<td>(0.005)</td>
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<td>(0.007)</td>
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<tr>
<td><strong>Female × Index</strong></td>
<td>-0.049*</td>
<td>-0.208</td>
<td>-0.010***</td>
<td>-0.006</td>
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<td>(0.111)</td>
<td>(0.140)</td>
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<tr>
<td><strong>Female × ExCommunist</strong></td>
<td>0.056***</td>
<td>0.055***</td>
<td>0.056***</td>
<td>0.034***</td>
<td>0.036***</td>
<td>0.045***</td>
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<td>(0.006)</td>
<td>(0.008)</td>
<td>(0.009)</td>
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Observations: 37354, 37390, 43962, 41437, 41437, 44955, 44955
Countries: 28, 24, 29, 27, 27, 30, 30

* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
Utilization of females with a child:

Numeracy

**Individuals with a child**

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<td>-0.076***</td>
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<tr>
<td>Female × Index</td>
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<td>0.118*</td>
<td>0.648***</td>
<td>0.640*</td>
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<tr>
<td></td>
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<td>(0.018)</td>
<td>(0.063)</td>
<td>(0.188)</td>
<td>(0.350)</td>
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<tr>
<td>Female × ExCommunist</td>
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<td>0.033</td>
<td>0.034*</td>
<td>0.045</td>
<td>0.046***</td>
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**Individuals with a child: Labor force participants**

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<tr>
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*p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
## Utilization of females with a child:

### Problem solving/ICT

**Individuals with a child**

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**Individuals with a child: Labor force participants**

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* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors clustered by each country are in parenthesis.
Utilization of females with a child I

With the full sample of individuals with a child...

• We found the same direction of impacts as the full sample estimation with all females

• Strong social norms toward traditional gender roles suppressed utilization of skill of females with a child

• A large labor union, public and service sectors encouraged utilization of their skill

• As a whole, the impacts of social norms and social institutions on females with a child were greater than the impacts on all females
Utilization of females with a child II

With the subsample of labor force participants...

- Social norms toward traditional gender roles marginally affected utilization of literacy skill
- Long parental leave system exacerbated under-utilization of literacy, numeracy and problem solving with ICT skill of females with a child
  - Parental leave may allow mothers to return their jobs
  - But, they seem to be driven into career paths different from males
  - Their levels of skill-use may be low even before childbearing due to statistical discrimination
Utilization of females with a child III

• Strict employment protection was also associated with under-utilization of numeracy skill

• Explanation similar to parental leave may apply
  ▶ Strict employment protection may prevent employers from dismissing females with a child
  ▶ However, it does not assure decent career paths for them
  ▶ Instead, they are assigned jobs fulfilled with low skill

• Public sector alleviated under-utilization of literacy skill, so it may provide better job opportunities for females after childbearing
Conclusion

- In this paper, we analyzed relationship between utilization of female skill and social norms and social institutions.
- Under strong social norms toward traditional gender roles, female skill were likely to be under-utilized.
- Long parental leave system and strict employment protection did not lead females to better jobs but to jobs with less intensive skill-use.
- Large labor union and large public and service sectors provided better job opportunities for skilled females.
- Females with a child were more sensitive to these social norms and social institutions.


## Participating countries in PIAAC

### Round 1 (2008–2013)
Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, Netherlands, Norway, Poland, Russian Federation, Slovak Republic, Spain, Sweden, United Kingdom, United States

### Round 2 (2012–2016)
Chile, Greece, Indonesia, Israel, Lithuania, New Zealand, Singapore, Slovenia, Turkey

### Round 3 (2016–2019)
Ecuador, Hungary, Kazakhstan, Mexico, Peru, United States
Preschool Rules

Welcome to our Preschool! We are looking forward to a great year of fun, learning and getting to know each other. Please take a moment to review our preschool rules.

- Please have your child here by 9:00 am.
- Bring a small blanket or pillow and/or a small soft toy for naptime.
- Dress your child comfortably and bring a change of clothing.
- Please no jewelry or candy. If your child has a birthday please talk to your child's teacher about a special snack for the children.
- Please bring your child fully dressed, no pajamas.
- Please sign in with your full signature. This is a licensing regulation. Thank you.
- Breakfast will be served until 7:30 am.
- Medications have to be in original, labeled containers and must be signed into the medication sheet located in each classroom.
- If you have any questions, please talk to your classroom teacher or to Ms. Marlene or Ms. Tree.
Literacy: Physical exercise equipment

Look at the exercise equipment chart. Click on the chart to answer the question below.

Which piece of equipment listed received the largest number of “ineffective” ratings?
Wind Power Stations

In 2005, the Swedish government closed the last nuclear reactor at the Barsebäck power plant. The reactor had been generating an average energy output of 3,572 GWh of electrical energy per year.

Work continues in Sweden on installing large offshore wind farms using wind power stations. Each wind power station produces about 6,000 MWh of electrical energy per year.

For your information:
Electrical energy is measured in Watt hours (Wh)
1 kWh = 1 kilo Wh = 1,000 Wh
1 MWh = 1 Mega Wh = 1,000,000 Wh
1 GWh = 1 Giga Wh = 1,000,000,000 Wh
Numeracy: Births in the United States:

Look at the graph about the number of births. Click to answer the question below.

During which period(s) was there a decline in the number of births? Click all that apply.

- 1957 - 1967
- 1967 - 1977
- 1977 - 1987
- 1987 - 1997
- 1997 - 2007

The following graph shows the number of births in the United States from 1957 to 2007. Data are presented every 10 years.
Problem solving with ICT

Unit 10 - Part 1
You are looking for a job and have located these five websites.

- You want to use a site that does not require you to register or pay a fee.
- Bookmark all the sites that meet your requirements.
- Once you have bookmarked the sites, click Next to go on.

Web Search
Job search

Find Your Job - JobSearch.com
The best job search site on the web. Check with us first!
www.jobsearch.com

Work Links
We connect you with the best jobs on the web.
www.worklinks.com

Looking for a job?
Start your job search here.
www.careerstarters.com

Connections.com
We provide access to the best jobs
www.connections.com

The best jobs online
If you are looking for the perfect job, start right here.
www.greatjobs.com
Problem solving with ICT

Unit 10 - Part 1
You are looking for a job and have located these five websites.
You want to use a site that does not require you to register or pay a fee.
Bookmark all the sites that meet your requirements.
Once you have bookmarked the sites, click Next to go on.

Connecting you to the BEST Jobs
Thousands of new jobs in the last 7 days
Search job sites, newspapers, associations and company career pages.
Problem solving with ICT

You are looking for a job and have located these five websites.

You want to use a site that does not require you to register or pay a fee.

Bookmark all the sites that meet your requirements.

Once you have bookmarked the sites, click Next to go on.

Connecting you to the BEST Jobs

To search for your new job, sign up for Work Links now!

First Name

Last Name

Your Email Address

Re-Enter Email

Create a password

Re-Enter Password

$15.00 for 1 month or $33.00 for monthly access plan

Credit Card Type: Select

Credit Card Number:

Expiration Date: Month Year