Gender difference in human capital accumulation and utilization
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An international perspective

what is the question?

some people (female) may not take advantage of their skill, despite high levels of skill possession.

Why should we care about it?

We need objective measure the relation with years of education and work experiences.

What is the answer?

1.Strong social norms toward traditional gender roles suppressed female skill-utilization.

2.Long maternal leave system and strict employment protection exacerbated under-utilization of female skill.

3.Public sector and service sector provided better job opportunities for skilled females, as well as labor union.

4.These effects of social norms and social institutions were more crucial for females with a child.

How did you get this?

1.Questionnaires were collected for adults aged 25-29 years.

2.Using two parameter logistic model to analysis.

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

- The prior distribution of θ_i is standard normal

- After estimating a_j's and b_j's by MLE, $\hat{\theta}_i$ was calculated as Baysian mean predictor.

3.mismatch indicator

mismatch = percentile (skilluse) − percentile (skill)

positive value → over − utilization

negative value → under − utilization

4.To reveal their relationships

$$Work_{ij} = \beta_j^s Skill_{ij} + X_{ij}\beta_j^x + d_j + u_{ij}$$
$$\beta_j^f = \gamma_0 + \gamma_1 Index_{ij} + \gamma_2 ExCommunist_j + v_j$$

- $Work_{ij}$ was a dummy variable indicating labor force participation, and X_{ij} included age and years of education

5.The empirical model

$$Mismatch_{ij} = \beta_j^f Female_{ij} + X_{ij}\beta_j^x + d_j + u_{ij}$$
$$\beta_j^f = \gamma_0 + \gamma_1 Index_j + \gamma_2 ExCommunist_j + v_j$$