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Skills, Employers' Preferences, and Occupational Segregation

In societies all over the world, we observe substantial amount of occupational sex segregation. This state of affairs may be brought about by a variety of factors, including reproduction of long-existing patterns, differences between sexes in terms of personal predilections, level and type of completed education, skills required for particular kinds of job, stereotypical beliefs, as well as employers' hiring preferences. In the present paper, I explore how segregation is linked to employers' skill requirements and hiring preferences, as well as male-female differences in skill self-evaluations.

Five rounds of Human Capital Study in Poland (2010-2014), a research project conducted by Polish Agency for Enterprise Development in partnership with Jagiellonian University, provide us with unique data to investigate the interdependencies between these factors. The situation in the Polish labor market has been diagnosed via random samples of working-age population (17,600 persons each year) and enterprises (16,000 firms each year). I employ both legs of the study to reveal the links between the actual occupational segregation and job-holders' and job-seekers' characteristics, as well as job-providers' hiring preferences. In particular, the unified framework of the study allows us to analyze the extent to which skill requirements of particular occupations coincide with skill self-evaluations of men and women in the labor market. At each level of the analysis we observe differences between sexes, and those differences tend to be intercorrelated. In my presentation I show how employers' proclivity to hire males or females is contingent both on the type of firm, and the characteristics of the vacancy to be filled.

Skills are a central concept in efforts to make sense of the labor market diversity by grouping jobs into larger, internally homogenous, categories. One of the widely used categorization schemes is International Standard Classification of Occupations (ISCO) managed by International Labor Organization. The structure is organized hierarchically – it starts with over 400 jobs at the bottom level, which are then categorized into larger and larger categories, thus forming a four-level structure in which jobs are grouped "based on their similarity in terms of the skill level and skill specialization required for the jobs"
[http://www.ilo.org/public/english/bureau/stat/isco/docs/methodology08.docx].

Human Capital Study not only employed ISCO scheme to record subjects' occupations but also asked a series of questions referring to the list of twelve general skills, namely: cognitive, mathematical, technical, IT, interpersonal, office, managerial, entrepreneurial, language, artistic, as well as physical stamina and readiness to work irregular hours. The same list of skills was included both in the survey of working-age population, and the survey of enterprises. In the former one, respondents were asked to self-evaluate their own level of particular skills, whereas in the latter, companies seeking to fill vacancies were asked to determine the level of particular skills required of future employees (in both instances, parallel 5-point scales were used). Among other questions, companies were also asked if they had any preference as to the sex of the applicant.

Generally, I find that substantial number of companies declare no gender preferences in hiring. Those who do have preferences tend to prefer males. However, gender preference is strongly linked to the size of the company and educational requirements: the larger the company and the lower the level of schooling required of the applicants, the weaker the preference for men.

Jobs for which women are preferred typically involve a direct contact with people who benefit from the tasks performed (typical examples being teachers and nurses), while jobs for which men are preferred typically involve some technical operations, either physical or intellectual (typical examples being drivers and engineers).

Using the data on skills, I performed logistic regression to see how employer's gender preference depends on the combination of skill requirements of a job position to be filled. In particular, I estimated how much a particular skill requirement increased or decreased odds of hiring a woman, holding all other skill requirements constant. Secondly, I performed logistic regression to predict the sex of a job-seeker based on a particular combination of skill self-evaluations. In particular, I estimated how a high level of a given skill self-assessment increases or decreases odds that – again, holding all other skills constant – an available applicant is female rather than male. Finally, after having estimated both models, I was in a position to inspect the relationship between gender preference of the hiring agents and the availability of job applicants of either sex, relative to particular skill mixes.

I found that gender preference in hiring, far from being random, heavily depends on the skill mix required. Furthermore, skill-based preferences of the employers are strongly linked to the availability of male or female job-seekers who reveal a desired pattern of skill self-evaluations.