Ask: NUS Economists

How can we tell if women are discriminated against in the labour market?

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For The Straits Times

A recent, well-reported survey highlights the existence of a gender pay gap in Singapore, but that alone is not sufficient evidence of workplace discrimination against women.

The survey found that the median salary of full-time female workers is 16.3 per cent less than that of full-time male workers. These observations have led people to assert that there is discrimination against females in the workplace.

Although the data may be consistent with a story of gender discrimination, it does not, in itself, provide conclusive evidence of it.

Other differences can contribute to differences in earnings and employment, including occupation and industry preferences, hours worked and skills.

Indeed, a recent Ministry of Manpower (MOM) study, led by my colleague, Professor Jessica Pan, shows that after adjusting for measurable differences between men and women, such as age, education, hours worked, occupation and industry, the median gender salary gap shrinks to a more modest 6 per cent.

One might say, "but isn't 6 per cent still a sizeable gap? Now, doesn't that reflect discrimination?" Still, not quite.

Although the MOM study adjusted for measurable differences between males and females, there could still be unobservable differences, including skills such as creativity, communication, teamwork and motivation which might explain part or even all of the 6 per cent gap.

In fact, establishing whether gender discrimination exists is tough. One would need groups of men and women to be identical in all ways, both observable and unobservable, for any differences in earnings and employment between them to be interpreted as being the result of discrimination.

One credible way to measure whether discrimination exists is by using an experiment. A popular variant of this approach is creating two fictitious resumes which differ only in the applicant's stated gender and name (one has a male sounding name, while the other has a female sounding name), but which are otherwise identical. In other words, educational attainment, academic grades, work experience, marital status and anything else which potentially influences how productive workers might be, are the same across the two resumes.

The resumes are then randomly sent to employers and the interview call-back rate is compared. Since the only thing that differs between the resumes is gender, a statistical difference in call-back rates would be indicative of gender discrimination.

A number of such studies have found that whether gender discrimination exists actually depends on the nature of the profession in question. While women might be discriminated against in some professions, they are favoured in others.

Professors Alison Booth and Andrew Leigh from the Australian National University found that female candidates were more likely than males to receive a call back for entry-level occupations in the food and beverage, data entry, customer service, and sales industries: 32 per cent versus 25 per cent.

But women were disadvantaged in some industries. Dr Pascale Petit from the University of Paris-Est Marne-la-Vallee found that the resume of a young female (aged 25) faced a lower call back rate than the identical resume of a young male when it came to high-skilled administrative jobs within the financial industry. Hiring discrimination against young female applicants was also found to increase when employers offered a long-term labour contract.

However, when resumes of older females and males (aged 37) were compared, there was little difference in call-back rates, suggesting that gender discrimination might be limited to younger females.

A possible reason is that hiring discrimination against younger women occurs because younger women are more likely to experience career interruptions due to childbearing. Because of the high costs of maternity leave, employers might be reluctant to employ young women for highly paid jobs and to provide them with long-term contracts.

Women also seem to be penalised in the teaching profession, especially at the university level. Professor Lillian MacNell from North Carolina State University and her co-authors found, using an experiment conducted at a United States public university, that students' ratings of an instructor's performance were higher when the instructor was perceived to be male.

This experiment involved students learning through an online platform, where the only contact with their instructors was through e-mail and an online discussion forum. The actual design of the experiment was complicated but, in essence, you could think of students as being randomly divided into four discussion groups.

Each discussion group was led by one of two instructors – one was male and the other female. Each instructor led one of the discussion groups under his/her own identity and a second group under the fellow instructor's identity (the students were informed or misinformed about the identity and gender of their instructors). Since students learnt the course online, they could not tell whether they were really being taught by a male or female instructor. At the end of the course, students were asked to evaluate their discussion group instructor.

A comparison of students' responses across the two discussion groups taught by the same instructor shows that students rated an instructor significantly lower when they perceived the instructor to be female. A possible reason for this is stereotypical perceptions: Female teachers might be incorrectly perceived to be less effective.

Although employers were not the ones discriminating here, this could nevertheless have implications for the earnings and career progression of female instructors, since in many tertiary institutions, salary adjustment, promotion and tenure decisions are made partly on the basis of such student evaluations.

So are women discriminated against in the workplace? Wage data alone does not paint a complete picture. Nevertheless, based on wage data and various experiments that try to tease out attitudes, it would appear that women do face discrimination in some positions at some stage in their work cycle.

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