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The previous methods economists used to determine human capital – the combined measure of an individual's skills, education, capacity and labour attributes that influences their productive and earning potential – are insufficient, having largely ignored the advances of women in the workplace, according to Economics professor and chair Audra Bowlus.

Policies that surround maternity leave, childcare and early childhood education – among other imperatives in place to help women retain greater attachment to the labour market – depend on an accurate measure of women's human capital, she explained. The danger of undervaluing women's human capital lies in providing insufficient benefits and supports when crafting policies that affect women in the workplace.

"Countries, statistical agencies and organizations like the International Monetary Fund or the United Nations try to do comparisons of growth over time – of human capital input as compared to the physical capital. Both contribute to the GDP (gross domestic product) but how much is related to each? When it comes to counting human capital, the way it's normally done misses important growth aspects," said Bowlus.

Working with Economics professor Chris Robinson, she has co-authored a paper titled "The Evolution of the Human Capital of Women," which is forthcoming in a special issue of The Canadian Journal of Economics. The paper explores wage-based and job skills-based approaches to measuring the increase in women's human capital over the last four decades in the United States.

Their findings suggest post-war economic growth and women’s contribution to that growth is substantially underestimated. New approaches to measuring human capital are needed, according to Bowlus and Robinson.

It's hard to measure human capital because we don't walk around with numbers on our forehead that indicate how many units we have, how many we are using and how many we are putting into the marketplace, Bowlus explained. Economists tend to use things that are easy to measure but are imperfect, like the percentage of the population that has completed postsecondary education, years of experience in the workforce, level of employment, hours spent working.

"If you're putting in more hours, you're supplying more human capital. Usually, people control for things like hours, adjusting by education and experience. But it turns out what that implicitly does is assume today's graduate has the same amount
of human capital as a university graduate 30 years ago," Bowlus said.

"It also assumes the experience you accumulated in 30 years is the same, whether you accumulated it in the 1970s and 1980s, or the 1950s or 1960s, or in Country A or Country B. It makes a lot of strong assumptions about the consistency over time about how much human capital is embodied in these units you have defined."

Bowlus and Robinson's paper shows this traditional method of measuring human capital misses a number of things.

More individuals are pursuing higher levels of education, sometimes in the same amount of time, so their human capital would be higher today than it would have been mere decades ago. Education, generally, is believed to be better, so collectively, we are all contributing more units than before.

Technological advances also play a role in the increase of human capital, Bowlus added.

"Growth is missed when you hold those things constant. In the first paper (one that looked at men and women in the United States), we figured out a way to give everybody a number to wear on the forehead," she explained. "We devised a methodology for imputing an amount of human capital to an individual they are supplying to the labor market. Then we counted up everybody's human capital over time and showed there was a significant undercounting of the growth in human capital over time by assuming that everybody was the same.

"It turns out that a lot of that growth in our initial measure actually came from women. There's growth from men; it's not inconsequential. But there are a lot of things changing for women over this period of time, from the late 1960s to the 2010s."

More women pursued higher education. More pursued higher level postsecondary education, going from working as a law clerk, for example, to a lawyer that supplies more human capital. There were changes around expectations of how much women would work, how much time they would take off after having a child – if they had a child. Women delayed getting married, working longer and contributing more to the labour force.

All of these increase the supply of women's human capital, Bowlus said, but they are not considered if we keep considering the previous constants surrounding levels and quality of education as well as time spent in the workforce.

"All of this is essentially only being represented by the growth and education and components and extra years of experience – but valued at an outdated level. You would substantially undercount the amount of human capital being supplied to the marketplace by women if you were to use the old methods."

The impact of this is unintended discrimination, she explained. We are undercounting women and should be much more cognisant of the role they play in our economic vitality and growth.

"We probably need to give them more credit for what's happened over time. It's not only about an undervaluation and contribution women are making to the economy," she said. "Childcare policies or early education policies, maternity-leave policies or parental-leave policies that allow people to return to work – one of the reasons we may be putting these policies in place is to help women retain a greater attachment to the labor market. These policies would be reinforced by (our study's) results because the argument would be the benefits are greater than what you've currently measured."

More information: The Evolution of the Human Capital of Women: https://ir.lib.uwo.ca/cgi/view...ontext=economicscibc

Provided by University of Western Ontario