Lecture 3: Human Capital Data

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Presentation Slides

Video

Q: What about the idea of good jobs bad jobs that makes homogeneous workers have different wages? How much is this effect with respect to the actual human capital differences?

A: Some labour search papers argue the bulk of wage variation (conditional on education if I am not mistaken) comes from search frictions that make similar people earn different wages. I am sceptical it is that much, but it is definitely significant. Here is one link: https://www.jstor.org/stable/3598804

Q: Defining those employed in LMICs is normally noisy as almost everyone does farming if not in formal employment, but the people in these countries rarely consider farming as a form of self-employment?

A: Yes, wages in low-income economies cover only some fraction of the economy. The self-employed or farm sector is harder in standard census data. People can lie about their revenues or just don't know it. The lecture on the Living Standards Measurement Surveys will be useful perhaps. Those surveys offer perhaps the best way to measurement those variables for the self-employed or farmers.

Q: In reverse, is it fair to say that if we observe a close relationship between wages and our chosen measure of human capital (skills, experience, education,...) that labour markets are functioning efficiently/are competitive?

A: Sort of. You never really measure human capital directly. But if you see e.g. strong differences between average wages and average education levels in a population, then yes, it tells that it is probably s reasonable assumption that people get paid more for higher human capital levels. Similarly for the strongly increasing wages with potential experience. I take that as good evidence people get more productive over their lifetimes and get paid for that.

Q: What people in an occupation do can change over time, which may be related to the human capital used in that occupation (for example, a writer now with AI is not the same than in the 60's), do you have any idea how important can this be to measure human capital?

A: Yes, in data sets like ONET this may mean the skills they used to use are now partially obsolete. I am not sure how often ONET gets updated. I don't know of too much work on this per se. There is a good sized literature on technologies replacing certain occupations. The Acemoglu-Restrepo paper on robots is a good example: https://www.journals.uchicago.edu/doi/abs/10.1086/705716

A: There's lots of research based on (online) vacancy postings on this, I'll add this one to David's prior suggestion: Atalay, E., Phongthiengtham, P., Sotelo, S., & Tannenbaum, D.

(2020). The evolution of work in the United States. American Economic Journal: Applied Economics, 12(2), 1-34.

Q: In terms of measuring occupation-specific human capital, I wonder if the occupation-specific component can be correlated with the industry in case of some occupation is concentrated on specific industry. Does it make it hard to measure the occupation-specific human capital correctly?

A: Yes, I think so. For some questions this is a big issue. Almost all miners are in the mining sector. Janitors and managers are in every sector.

Q: Would completion of child routine vaccine considered a measure of early child investments?

A: About vaccination, yes, it should be. I doubt any study in this literature took that directly into consideration. The Weil QJE paper that Todd mentioned gets at this at best indirectly.

Q: Can anthropometric data from household surveys be a reliable proxy for children's human capital, particularly if catching up is not possible?

A: People have used height for weight and other measures. I am not an expert on those measures. It seems like a very slow moving variable. Good point.

Q: Will it be possible to discuss about historical human capital data? My thought process is that when comparing dynamics of structural change of developing countries with those of developed countries you need to compare the current data of developing countries with historical data of developed countries. So when it comes to standard measures of human capital, as discussed in first few slides, what is the quality of historical data (19th century onwards) for developed economies, if it is available and accessible?

A: In general I agree with you. Do you want to ask Todd about that? (He will agree with you in principle, and may have some better ideas about historical data on human capital).

Q: Do we how seriously economists still take this approach (Approach 1: w = MPL)?

A: I think most economists think it is false but a useful assumption to start. In parts of the economy with a monopsonist employer it should be particularly bad as an assumption. In models with frictions in labour markets workers can get farther from their marginal products.

Q: Do you know why are there 3 "LUX"s in the data of Ma et al. (2024b)?

A: I believe this is because of different years.

Q: You defined training as "any organized and structured learning activity outside the formal education system". At the same time, in the human capital literature, there is something called "learning by doing". Do you know if somebody discussed how we distinguished between the two? Sorry if it has been discussed during the presentation, I might have missed this. I am asking this because if we care about mitigating human capital, then training seems like a solution that is transferrable and exportable to other countries, whereas learning by doing is not.

A: Good question. The Ma, Nakab, Vidart paper has both channels in the model, though Todd didn't talk about this. You can check out the references in their paper too. The challenge is that you don't often observe learning by doing directly in the data.

Q: Are you aware of any data that measures the time spent on tasks? (besides the paper "self-employment within the firm")

> A: There are time use modules as part of the Living Standards Measurement Surveys that will be discussed next class. They are pretty detailed. But they are not about tasks within the firm during the production process. Diego Comin has a new paper with colleagues at the World Bank but I couldn't find it now on his website. They have more specific data on tasks within the firm, but it is not as detailed as the "Self-Employment…" paper you mention.

Q: On the demand side, are there data sources on skills demand in developing countries? Similarly, any suggestions on data sources for skills demand in 'emerging' sectors for example renewable energy and other climate change adaptation related sectors

> A: For the skills demand question, there is a data partnership program of LinkedIn with many organizations. EBRD has a report "Labour markets in the green economy - EBRD", there are representativity caveats as well. Here is the link: https://datapartnership.org/.