

# Discussion of: A New Decomposition of the Wage Differential between Genders (by Dilaka Lathapipat)

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# Overview of discussion

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- What the paper does
- Why it is worth doing it
- Some improvement suggestions

# What the paper does

- Tries to improve on the way we understand:
  - What influences wages over lifetime with specific reference to schooling and post schooling experience
  - How we should best decompose the male-female wage gap in order to understand the old and persistent empirical regularity (males in 2001 were on average earning 14% more than females)

# How does it try to do it

- Behind this paper is the investment decision with a trade off between lower initial earnings from investing in post-schooling education and higher rate of growth of wage rates with experience
- It incorporates further information in the data, based on the variation of education and work experience within the context of human capital investment in a way inspired by Heckman et al (2005)

# Is this really worth doing?

- **Yes!**

- Because it goes to the heart of the wage gap problem by looking at the gender differential in building human capital
- Because it introduces a novel extension in the applications of decomposition
- Because it comes up with some rather strong results

# The bottom line of the paper

- If you use the conventional Oaxaca model you explain only 11.4% of the approx. 14% wage gap
- If you use the augmented estimation and decomposition you explain 46.8% of the same gap!
- In the context of this literature this is a massive improvement

# What could be improved: I

- The emphasis of the paper:
  - It now rests too much on the decomposition theme, but there is nothing new in the decomposition methodology.
  - The paper introduces a better way to estimate the wage equation, which works better in a conventional decomposition setup

# What could be improved: II

- The decomposition methodology used
- I would suggest instead of the Oaxaca Blinder decomposition, a safe (and very good) extension to the Oaxaca-Ransom (*Journal of Econometrics* 1994) method
- This is a weighted decomposition that generally fits the data better and by that token reduces the “unexplained” % of the gap

# What could be improved: II (cont.)

- Note: Mean male log Wage = 2.936
- The paper presents the “male model” which says:
  - In the absence of unexplained differences the mean female wage would also be 2.936
- With the mean female log Wage = 2.798 and some 41% females in the sample, this would imply a rise in the wage bill in the economy of approx. 6%! Clearly not a good assumption!

# What could be improved: II (cont.)

- Alternately, the “female model” (not presented in the paper) would say that the correct counterfactual would be that all wages would go down to the mean female level of 2.798. Not realistic either.
- Further, “male” and “female” model decompositions are miles apart.
- The Oaxaca-Ransom (1994) method assumes that in the absence of unobserved differences wages would average the present average of the economy.

# Suggestion 1: Use alternative decompositions

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- First take the safe route of Oaxaca-Ransom. It'll almost certainly give interesting results.
- I would also look at decompositions of the JMP type that essentially concentrate on differences in the error terms (but would not hold my breath).

# What could be improved III

- Selection into employment is missing from the picture.
- We know that selection matters as it is non-random
- We also know that selection has a lot to do (in a possibly endogenous fashion) with education.
- Selection can be modelled in this context

# What could be improved III

- Introducing selection will improve this research:
  - It will introduce difficulties as we know of the identification problems it presents.
  - If done well it will account for a lot of the variation in wages in terms of both the observed and unobserved factors causing participation.
  - Selection decompositions can also be done

## Suggestion 2: model selection in two stages

- Move to a two stage estimation framework
- Introduce selection into the Oaxaca-Ransom decomposition framework: This will show what experience does in the model with selection (which stage does it influence?)
- Introduce indirect decompositions into the model and investigate then how the modelling of experience improves the decomposition results

# What could be improved IV

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- In this great era of many comparable data sets, it will be a shame to not see if this hypothesis can be validated by using other data sets.
- Both SOEP and BHPS will give longer time horizons and very comparable data (and a higher chance of getting into some of the top international journals...)

## Suggestion 3: Replicate using the BHPS or SOEP

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- It is a good opportunity to promote the CNEF files with HILDA
- Do some comparative work and cross-validation

# Some caveats

- Bootstrap your decomposition results.
- Heckman et al (2005) argue that cross-section data may be problematic, but repeated cross section and panel data improve matters. Must at least defend the use of only cross section data.
- Explain the link between the maths and the actual estimation clearer