Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University

Student:	**Nigina Baydadaeva**
Advisor:	**Barbara Pertold-Gebicka**
Title of the thesis:	**How Family Size Affects Parents' Labour Market Outcomes: A Meta-Analysis**

OVERALL ASSESSMENT *(provided in English, Czech, or Slovak):*

Please provide a short summary of the thesis, your assessment of each of the four key categories, and an overall evaluation and suggested questions for the discussion. The minimum length of the report is 300 words.

Short summary

The master thesis by Nigina Baydadaeva presents a typical meta-study of the literature estimating the effect of children on parental labor market status. The title is a bit misleading, because the thesis does not deal exclusively with family size (which in the literature refers to the number of children), but generally to fertility (i.e. having a child). A wide range of labor market outcomes is considered: from earnings and wages to hours worked and labor force participation. This makes the meta-study challenging because the author comes across comparability between the estimates of the effect of children on these very different outcomes. Mothers and fathers are analyzed separately, which is a big plus of the presented analysis. The general message of the thesis is that there is significant publication bias in the analyzed literature, negative for women and positive for men. This suggests that the true effect for women is still negative, but much closer to zero than most studies suggest. The true effect for men appears to be around zero or slightly positive. Due to the inclusion of different labor market outcomes in the analysis it is not possible to discuss the economic magnitude of these effects.

Contribution

I see the main contribution of this thesis in synthesizing and meta-analyzing the research of children on fathers' labor market outcomes. This is something that was missing in the literature.

The author also highlights focus at different labor market outcomes, and not only wages as in the earlier literature, as her contribution. This would be a good addition to the literature if analyzed separately, e.g. if there was a single analysis of the effect of children on female (and male) labor force participation. But combining different labor market outcomes together does not seem like a good idea.

Methods

I find the decision to consider all measures of fertility (having at least one child, the number of children, having a child of specific age) and, especially, all measures of labor market outcome (wages, hours worked, labor force participation) not the best approach. This makes it very difficult, if not impossible, to derive informative conclusions.

Let me illustrate it on an example. Having a child might lead to withdrawal of a woman from the labor market (i.e. a negative effect on labor force participation). This happens mainly among lower-skilled, lower-earning women. Then, in some countries we might observe that the mothers who remain on the labor market earn, on average, more than women who withdrew and so the wage gap between mothers and childles women might be more in favor of mothers than the gap between mothers-to-be and childless-to-be. (i.e. a positive effect on wages). This sample selection can be dealt with using econometric methods and many authors (but not all) do that. The meta-analysis controls for the method linearly and in the same way for each labor market outcome, even though selection is an issue when measuring wages, but not when measuring labor force participation.

Another issue is how to interpret the results when so different outcomes are anayzed.

Understanding of the methods used in the meta-analyzed literature is weak. It is crucial to understand why and in which cases (see, for example, my comment above) authors apply specific methods to correctly account for this in the meta-analysis. Understanding endogeneity and instrumental variable estimation is one of them. These topics are introduced on bachelor level at IES and further developed

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in master-level econometrics, so this is nothing beyond the IES curriculum. Yet, the author of this thesis is not able to explain why endogeneity is an issue; she repeats several examples (probably used in different papers) as different sources of endogeneity, while it all the time refers to the same thing: omitted variable that leads to spurious correlation.

The part of the thesis that is devoted to the pure meta-analysis, together with the description of the up-to-date meta-analytical methods, is good. The author follows the best practice defined by her supervisor, applies all the relevant tests and clearly presents their outcomes. What is a bit weaker, is economic interpretation of the findings. Why, for example, certain methods lead to higher/lower estimates? Why the publication bias is stronger in the

The best practice estimates presented in Chapter 6 are positive for both male and felame samples. This is surprising, given that most of the female estimates are negative, and even after correcting for publication bias „these results suggest that the true effect is constantly negative and higher in absolute values after correcting for the publication bias." (p. 42 of the thesis). There is no comment on that in the thesis!

Literature

The literature review is the weakest part of the thesis, what is somewhat surprising given that this is a meta-analysis. Generally, the literature review is messy, it is not clear what is the main message and why the author jumps so much from topic to topic.

The author is basing the discussion presented in the theoretical background part of the literature review on many outdated papers. The role of children in shaping parental careers has evolved over time. What was important 20-30 years ago (strikingly many studies from the 1990s are cited in the section on theoretical background), may not be that relevant today. Yes, older studies should be cited, but then the author should also discuss how the forces have changed over time and what is the current consensus in the literature regarding the theoretical foundations of parenthood gaps.

I think that the most striking ommition is not citing the research by Claudia Goldin. She was awarded the Nobel prize last year „*for having advanced our understanding of women's labour market outcomes"* ([The Prize in Economic Sciences 2023 - Press release - NobelPrize.org](#)). Whan discussing the role of family in women's labor market careers, one cannot omit her contributions. Similairly important are the studies by Francine D. Blau and Lawrence M. Kahn who regulairly publish updates on the situation of women in the US (and international) labor market, stressing childrearing as one of the important factors.

I am afraid that the quality of the literature review sheds light on the quality of the whole thesis. It is evident that the author did not get the full picture of how economics (and related fields*) view the role of parenthood in shaping labor market outcomes. This strongly affects the way how the meta-analysis is built and how its results are interpreted.

*By the way: many sociological papers are cited in the literature review. It is OK, I am all for interdisciplinarity. But I think that it is worth noticing from which field the given contribution comes, because the theories and empirical approaches differ among fields.

Manuscript form

The manuscript is well-organized when it comes to the core of the meta-analysis and somewhat chaotic in the preceding parts of the thesis. Figures and tables are nicely formatted and most of them are well-described using titles and footnotes. The only exception are tables 3.2 and 3.3. Conclusion is descriptive and technical, there is no general discussion of the results and no economic/intuitive interpretation.

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Overall evaluation and suggested questions for the discussion during the defense

The presented thesis aims at sythetizing and meta-analyzing the literature on the effects of children on parental labor market outcomes. It is a huge literature which, maybe a bit surprisingly, gains more and more attention recently. The author applies up-to date meta-analytical tools to analyze results presented in the literature. The technical part of the thesis is good, but the theoretical part and the link between the meta-analysis execution and it interpretation to economic/econometric theory used in individual studies is weak. I think that to run a meta-analysis one needs to have a very good understanding of the underlying literature and this part is very weak in the presented thesis. Running the meta-analysis code and rewriting the theory behind the meta-analysis might not be that challenging given all the best-practice instructions provided by the meta-analytical team at IES. This is why I look for this thesis value added in understanding the underlining literature and in interpreting the results in light of this literature's evolution. This latter part is completely missing.

This is why, in my view, the thesis fulfills the requirements for a bachelor thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and but suggest a grade C/D based on student's performance during the defense."

The results of the Turnitin analysis do not indicate significant text similarity with other available sources.

Suggested questions:
1. When you restrict your sample to studies analysing only the effect on log(wages) – as the other meta-studies do – do you get similar results as they did? Or maybe your methods allow for improvements over the previous meta-analytical finding?
2. Explain the idea of using PCC instead of estimated coefficients in a meta-analysis. What are the advantages and disadvantages? How does one interpret PCC?
3. Explain, using economic theory, why having a child might have an effect on woman's labor market activity on the example of hourly wage. Does it differ with child age? Why?
4. Why is there such a big publication bias in the literature? What is driving it?

SUMMARY OF POINTS AWARDED *(for details, see below):*

CATEGORY		POINTS
Contribution	*(max. 30 points)*	25
Methods	*(max. 30 points)*	20
Literature	*(max. 20 points)*	9
Manuscript Form	*(max. 20 points)*	15
TOTAL POINTS	*(max. 100 points)*	**69**
GRADE	**(A – B – C – D – E – F)**	**D/C**

NAME OF THE REFEREE: Barbara Pertold-Gebicka

DATE OF EVALUATION: **9.9.2024**

Digitálně podepsáno (9.9.2024)
Barbara Pertold-Gebicka

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Referee Signature

EXPLANATION OF CATEGORIES AND SCALE:

CONTRIBUTION: *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

METHODS: *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

LITERATURE REVIEW: *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

MANUSCRIPT FORM: *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

Overall grading:

TOTAL	GRADE
91 – 100	A
81 - 90	B
71 - 80	C
61 – 70	D
51 – 60	E
0 – 50	F