

# Report on Master Thesis

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

Student:	Andrea Havrilova
Advisor:	Mgr. Barbara Pertold-Gebicka M.A., Ph.D.
Title of the thesis:	The Effect of Family Size on Men and Women Wellbeing

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

The master thesis utilizes the SILC data for the year 2013 to estimate the effect of the number of children on the wellbeing of parents. Instrumenting the number of children with “multiple births”, it finds out insignificant results for the overall sample the effect for women is significantly positive. Additionally, the effect of the number of children on family income is tested finding out an insignificant result.

The thesis deals with an interesting topic, its structure is nice and predictable, however the analysis suffers from a number of drawbacks and the thesis is written very carelessly. **The language of the thesis is particularly weak, including a number of typos and grammar errors.** Major drawbacks of the thesis include:

1. The author assumes that the number of kids is endogenous to wellbeing and thus replaces the explanatory variable with an instrument “the number of multiple births (twins)”. Instead of OLS, an OLS with an instrumental variable (even though the author argues that it is a 2SLS estimation) is carried out.
  - a. The author tests endogeneity using qualitative comparison of R-squared only. **I miss any kind of statistical test, such as LR test etc. to test whether the explanatory power of the two models is significantly different.** Even though the author concludes that **endogeneity is not present, she still uses the instrument which very much reduces the size of the sample** causing additional problems, rather than solving endogeneity.
  - b. **I doubt that the number of multiple births is a proper instrument for the number of kids.** Even though it may to some extent help, the decision behind the number of kids and multiple births is the same. What is endogenous in both cases is that the people in modern societies decide whether to give additional birth or not, i.e. the childbearing decision is the same both for single and multiple births. Thus it is not the number of children per se but the childbearing decision which is endogenous.
  - c. **In this case a proper 2LS estimation may help,** because a sample size would not be decreased if first all exogenous variables would be used to estimate  $\hat{y}_2$ , including all instruments, and then  $\hat{y}_2$  would be used instead of  $y_2$  to estimate  $y_1$  together with all exogenous independent variables, not instruments. Consequently, difference in explanatory powers of the models should be statistically tested and the presence of endogeneity judged upon.
  - d. In the robustness check, potential presence of endogeneity between income and the number of kids is considered, but **endogeneity is not considered when the effect of the number of kids on income is tested.**
2. Both in the analysis and when the results are compared with international literature, **the thesis disregards institutional factors.** For the Czech dataset it includes e.g. availability of daycare facilities and in comparison with international studies

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institutional factors which should be discussed include structure of family policies and allowances. To be specific, where daycare (kindergartens, play groups, etc.) are available, mothers can return to work and the work-life balance when they have kids may have a different effect on their wellbeing since some may be worried to deteriorate their work skills due to long time off work due to child-bearing and caring.

3. I expect that **the effect of the number of children on parents' wellbeing is not linear**. Even though the data do not allow for it, the possible **non-linear effect should at least be discussed**. Specifically, the effect of the number of children on women may be positive up to a certain number of kids and then may decrease.
4. The thesis tests the effect of marital status on wellbeing. **Which status is excluded from the estimated variables? From what the author describes on p. 35 it seems that each status is a linear combination of the rest thus causing statistical problems.**

Minor points cover:

1. Even though in modern societies, children are generally "luxury goods", in some segments of the population they may represent "economic good", particularly when social allowances are generous. This is not discussed in the thesis at all.
2. Abbreviation "SWLS" is used and explained only when used for the second time. List of abbreviation is missing.
3. Page 19 majority of the text should be merged with chapter 1.3.1. Here the author is merely repeating what has already been said.
4. Education is used as a dummy (0=if elementary school, 1=if high school or university). Why not test the effect of a discrete variable 1-3 for different levels of education?
5. Correlation matrix of the dataset is missing. I wonder how the number of kids correlates with the number of multiple births.
5. Why is the dataset eliminated according to age of parents when age of children is considered?
6. The author concentrates only on parents, but the effect of 0 number of kids would be interesting too. It is a motivation for further analysis.
7. The thesis should elaborate more on hypotheses.
8. The argument that only a few people in the dataset are widowed, which is a reason for significance of the variable is completely wrong. It is rather visa versa, isn't it?

Due to the above-mentioned drawbacks I suggest the author should be awarded **grade 3 (satisfactory)**.

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

<b>CATEGORY</b>	<b>POINTS</b>
<i>Literature</i> (max. 20 points)	15
<i>Methods</i> (max. 30 points)	20
<i>Contribution</i> (max. 30 points)	28
<i>Manuscript Form</i> (max. 20 points)	6
<b>TOTAL POINTS</b> (max. 100 points)	<b>69</b>
<b>GRADE</b> (1 – 2 – 3 – 4)	<b>3</b>

**NAME OF THE REFEREE:** *Jana Votápková*

**DATE OF EVALUATION:** July 13, 2016

*Jana Votápková*

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**Referee Signature**

**EXPLANATION OF CATEGORIES AND SCALE:**

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

Strong                  Average                  Weak  
20                          10                          0

**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.*

Strong                  Average                  Weak  
30                          15                          0

**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.*

Strong                  Average                  Weak  
30                          15                          0

**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.*

Strong                  Average                  Weak  
20                          10                          0

**Overall grading:**

TOTAL POINTS	GRADE		
81 – 100	<b>1</b>	= excellent	= výborně
61 – 80	<b>2</b>	= good	= velmi dobře
41 – 60	<b>3</b>	= satisfactory	= dobře
0 – 40	<b>4</b>	= fail	= nedoporučuji k obhajobě