

Report on Bachelor / Master Thesis

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

Student:	Van Anh Nguyenová
Advisor:	doc. PhDr. Zuzana Havránková, Ph.D.
Title of the thesis:	How much does intelligence predict lifetime income? A meta-analysis

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

Short summary

This exceptional thesis presents the first modern meta-analysis of the effect of intelligence on income. In particular, the author corrects the literature for publication bias, which has not been done before. Publication selection bias is important in this literature, as positive and significant results are much more likely to be reported. The corrected mean effect in the literature suggests that a standard-deviation increase in IQ increases income by about 5%, which is about half the value that is commonly assumed in the literature. By the way, this shows that intelligence has about the same effect on income as beauty has. The author also shows how the IQ effect depends on context and measurement.

Contribution

When reading the work, one can easily forget that this is a bachelor's thesis, not a master's thesis. To the standards of a bachelor's thesis, this work is exceptional: after some revisions, it could be certainly published in a solid international journal such as *Economic Modelling*. If published, it would attract a healthy number of citations: the literature awaits a meta-analysis that properly relate the varying results in IQ research to differences in study design, all the while accounting for publication bias. The author delivers such a meta-analysis. In the abstract and introduction, she could have been more forceful and give the reader a central estimate of the thesis, not only the upper cap (supporting the conclusion by a best-practice estimate). That being said, she is carefully choosing her language every step she takes, which is commendable. The thesis is far from the mechanical applications one usually sees in bachelor works.

Methods

The author uses new publication bias correction methods that go beyond the econometrics curriculum at the BA level: WAAP (Ioannidis, Stanford), stem-based method (Furukawa, MIT), Endogenous kink (Bom, Rächinger), Selection model (Andrews, MIT). Also, methods used to address model uncertainty are up-to-date: Bayesian model averaging and frequentist model averaging. These techniques are properly applied and the author understands them well.

Literature

As far as I can tell, all relevant sources are properly cited.

Manuscript form

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Typeset beautifully in LaTeX and written in very good English. The author cautiously chooses the language on correlation v causation.

Overall evaluation and suggested questions for the discussion during the defense

This is an outstanding work that, in my opinion, if well defended deserves an award for at least three reasons:

- clearcut contribution (the analysis was not done before and involved manual collection of an original dataset; the meta-analyses previously conducted in psychology use the first order correlations only and do not correct for publication bias),
- methods are competently applied and are beyond what bachelor level involves (or master, for that matter),
- well written and argued for, publishable after minor revisions.

Question for thesis defense: what are the benefits of the caliper test (which you use on p. 31) with respect to meta-regression models in the tradition of David Card (also called "Egger regression")?

In my view, the thesis fulfills the requirements for a bachelor's thesis at the IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a grade A. The results of the plagiarism software analysis do not indicate significant text similarity with other available sources.

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

CATEGORY	POINTS
<i>Contribution</i> (max. 30 points)	28
<i>Methods</i> (max. 30 points)	30
<i>Literature</i> (max. 20 points)	20
<i>Manuscript Form</i> (max. 20 points)	20
TOTAL POINTS (max. 100 points)	98
GRADE (A – B – C – D – E – F)	A

NAME OF THE REFEREE: Doc. PhDr. Zuzana Havránková, Ph.D.

DATE OF EVALUATION: 7.8.2023

Digitally signed, Zuzana Havrankova

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