Report on Bachelor / Master Thesis

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

Student:	**Jakub Stejskal**
Advisor:	**Mgr. Roman Kalabiška**
Title of the thesis:	**Socio-Demographic determinants of traffic accidents in the Czech Republic**

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

Short summary

After reading the title one expects an examination of how individual characteristics of drivers influence the incidence of traffic accidents. But in fact, the author regresses traffic accidents on district level characteristics: proportion of married people, average pension, etc. I believe this is a decent topic for a bachelor's thesis because it allows the author to show his econometrics skills using a relatively simple problem (though identification is actually complicated here and one cannot hope to arrive at isolating causal effects using the data at hand).

The econometric analysis provided in the thesis corresponds, I believe, to the information taught at the BA level, but does not venture beyond that – which is of course not a problem generally, but here it means that the results are not credible because slightly more advanced techniques are needed to deliver results that (we can at least hope) make sense.

First, the author should have used fixed effects in order to filter out the effects of unobserved characteristics of individual districts. Because panel data techniques are probably not taught at the BA level, this is not the author's fault, but omitting fixed effects makes the reported results quite meaningless.

Second, the author uses the so-called "general to specific" technique to get rid of supposedly unimportant variables. In practice, what he does is that he removes statistically insignificant variables one by one. The approach is statistically invalid because only the first t-test makes sense; the other ones are in fact conditional, but the author does not take the conditionality into account. The author should either delete the (jointly) insignificant variables together using an F-test or use model averaging techniques to address the model uncertainty he faces.

Contribution

This research question provides a nice opportunity to display the mastery of basic econometric techniques, but the scientific contribution is limited even given the standards of a BA thesis. The basic problem is that the identification (district-level characteristics and their effect on district-level traffic accidents) would make sense only if the borders between districts could be considered closed or almost closed – for example, during the lockdown earlier this year. Otherwise, people of course routinely travel across districts, often on a daily basis. The figure in the Appendix shows that the incidence of travel accidents varies greatly across regions, but that is

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more likely given by traffic intensity and terrain complexity than the percentage of married people. Unfortunately, the author does not control for the former two aspects. The introduction, which should highlight the contribution, only shows that traffic accidents do happen.

Methods

As I have noted, the methods (OLS and sequential t-tests) are not adequate to the data and research question at hand.

Literature

The relevant literature is covered well, though the methodology of the previous studies is not discussed in sufficient detail.

Manuscript form

I appreciate that the thesis is typeset in LaTeX. But it seems to have been written in haste and suffers from typos and strange formatting choices: for example, consider the title page, which contains at least 6 mistakes in the writing of capital letters. Does the thesis fulfill the minimum character count required by the faculty?

Overall evaluation and suggested questions for the discussion during the defense

This is a decent thesis, but I think that in recent years the standard for BA theses has shifted significantly, and therefore I cannot recommend grade A or B (especially when the results are really not credible).

In my view, the thesis fulfills the requirements for a BA thesis at IES, Faculty of Social Sciences, Charles University, I recommend it for the defense and suggest a grade C.

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

Questions for defense: please comment on why you don't use fixed effects and why you do sequential t-tests. How often have you consulted your research with your advisor?

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

CATEGORY		**POINTS**
Contribution	*(max. 30 points)*	21
Methods	*(max. 30 points)*	16
Literature	*(max. 20 points)*	17
Manuscript Form	*(max. 20 points)*	17
TOTAL POINTS	*(max. 100 points)*	**71**
GRADE	**(A – B – C – D – E – F)**	**C**

NAME OF THE REFEREE: ***Zuzana Havrankova***

DATE OF EVALUATION: ***August 6, 2021***

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**