

HABILITATION THESIS REVIEWER'S REPORT

Masaryk University

Applicant

Luca Fumarco

Habilitation thesis

Demographic Characteristics as Drivers of Inequality

Reviewer

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Reviewer's home unit, institution

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The undersigned has been appointed by Masaryk University to evaluate the habilitation thesis of Luca Fumarco.

The thesis consists of an introduction, two chapters, summary and concluding remarks, a bibliography and an appendix.

Following is a report on each of the chapters in the thesis and an overall assessment.

Introduction:

The introduction highlights the two main research questions, which the thesis will investigate – discrimination in mental health care access and the effect of age differences on use of social networks, life satisfaction and health among adolescents. Both are very topical and socially relevant areas of inquiry and both deal with differential treatment of minority demographic groups in society in the health care system and inequality that results from this. The two questions have been analyzed in 4 research papers, all of which are published in very good to excellent journals.

Chapter 1: Impact of Discrimination and COVID-19 on Access to Mental Health Care

Chapter 1 describes three related explorations concerning possible discrimination in access to mental health care. First, whether transgender and nonbinary (TNB) persons encounter discrimination in access to mental health care; second, whether the intensity of the COVID-19 pandemic affected access to mental health care generally, and third, whether the disruption to the health care system caused by the COVID-19 pandemic differentially affected access to mental health care for the different demographic groups above. All three of these questions have been analyzed using data generated by a unique correspondence audit field experiment where 1,000 fictitious applications for appointments were sent to mental health care providers in the U.S. The pool was nationally representative, and steps were taken to ensure sufficient power. The setup allowed for testing both gender identity discrimination and ethnic and racial discrimination as well as their interaction, i.e. what sociologists have termed intersectionality. This is a novel approach in economics, as usually, researchers treat these identities as separate dimensions. These enquiries have been published in the American Journal of Health Economics (questions 1 and 3) and in the AER Papers & Proceedings (question 2), which are considered excellent field and general interest journals in Economics, respectively. Both papers are co-authored with a number of coauthors, most of whom overlap in the two publications. This is not unusual in the case of a

project involving a field experiment where ideally the competencies of many researchers should be pooled. The contribution of the candidate is 25% to each of these papers. These are carefully set up and well-executed studies that have already gone through peer review and published. It is commended that the authors conduct robustness checks altering the definition of “positive response”. A few suggestions for future work in this area are: 1) to include a large enough sample of providers to have sufficient power to be able to draw strong conclusions on estimated effects within subgroups; 2) consider whether the way of revealing TNB status is indeed natural at the application stage, or whether it can lead to some priming; 3) whether discrimination also arises according to other dimensions such as quality of care provided given that an appointment is granted and 4) consider that at the onset of the pandemic the demand for mental health care actually fell and whether this would affect the interpretation of the findings.

Chapter 2: Relative Age Effects on Adolescents’ Social Networks and Well-being

Chapter 2 describes a number of investigations (also ongoing) exploring the effect of relative age on students’ social networks and friendships and on their health and well-being using the HBSC survey in European and North American countries. Thus, it expands the existing literature by considering broader outcomes relating to adolescent thriving and not just educational outcomes. The identification strategy is based on instrumental variables, where a student’s age relative to the maximum age in the class is instrumented by the month of birth in the academic calendar, exploiting differences across countries in when the school term starts. Two academic papers are included exploiting these data and these are published in very good journals in Economics, i.e., JEBO and Economics & Human Biology, respectively. Both papers are coauthored with the same single coauthor and the candidate’s contribution is 80% to each of these papers. These two studies are carefully and convincingly done and generate many interesting findings on relative age effects on adolescent social behavior and well-being including the benefits of postponing tracking. Some comments for future work are 1) include more recent waves of HBSC survey, as the last wave used in this thesis is from 2009/10, and much has changed since then, especially the huge increase in social media use among adolescents. It will be very interesting to see if the same effects are found on more recent data. 2) In future studies, it would be good to explore probable channels of transmission underlying the found effects, although they remain speculative. In ongoing work, the candidate is indeed exploring such mechanisms, it seems.

Minor point:

Spelling mistake. Table 2.1: Relative age on standardised e-communication, quantity of friends and of meeting with friends after **school**; 2SLS second stage results.

Summary and Concluding Remarks:

The summary chapter highlights the key results of the thesis and links them to the current policy debate. It concludes by suggesting directions for future policy interventions in the light of the discoveries made in the thesis.

Bibliography & Appendix:

The thesis includes a bibliography containing all references, an appendix of abbreviations, authorship contribution statements and copies of the four articles that have resulted from the thesis.

Overall assessment:

The habilitation thesis presents the candidate's completed and ongoing works in the broadly defined area of how inequitable treatment of minority groups affects health care access, social functioning, well-being and health. It provides evidence on timely and societally important questions concerning the effect of demographic characteristics on individual health and social outcomes, and it highlights that substantial progress still needs to be made to ensure that minority groups receive adequate care and achieve welfare levels comparable to majority populations.

The findings are derived from carefully-conducted econometric studies that allow for credible causal inference, either through unique, well-designed experiments or through good quasi-experimental econometric methods. The papers are written with great clarity. During the habilitation period, the candidate has succeeded in publishing four papers in either very good or excellent journals within Economics - an impressive accomplishment that reflects the candidate's talent, dedication and strong ability to cooperate with researchers across a range of levels and institutional contexts. Based on my reading of the thesis, I assess that Luca Fumarco's habilitation clearly meets the requirements generally expected of habilitation theses in Economics.

Reviewer's questions for the habilitation thesis defence:

1. The candidate only considers discrimination of TNB, Hispanic and African American individuals (and their intersection) in Chapter 1. One group that was particularly discriminated against during the Pandemic were people of Asian descent. Why not consider possible healthcare provider discrimination against this minority group also?
2. Some reports show that demand for mental health care actually fell at the outset of the Pandemic, with many individuals suffering from mental health choosing to refrain from visiting their provider during this time. How would falling demand for mental health care in the beginning of the Pandemic affect the interpretation of your findings and the conclusions you draw from them in Chapter 1? Can you test for this somehow?
3. In Chapter 2, can you speculate how your findings would apply in more recent times, where there has been a surge in the use of social media among young people and studies showing declining mental health as a result?
4. What are some of the probable mechanisms underlying your findings in Chapters 1 and 2?

Conclusion

The habilitation thesis entitled *Demographic Characteristics as Drivers of Inequality* by Luca Fumarco **fulfils** requirements expected of a habilitation thesis in the field of Economics.

Date:
26/1-2026

Signature: