

DANIEL V. A. DUQUE

NHH Norwegian School of Economics, Department of Economics

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Placement Director: Katrine Vellesen Løken

EDUCATION

NHH Norwegian School of Economics Ph.D. Research Scholar in Economics	08/2020 - present
UFRJ Federal University of Rio de Janeiro Master of Science in Economics	02/2017 - 06/2019
UFRJ Federal University of Rio de Janeiro Bachelor of Science in Economics	08/2011 - 06/2016

REFERENCES

Professor Alexander L.P. Willén

Professor of Economics, Norwegian School of Economics, alexander.willen@nhh.no

Professor Aline Bütikofer

Professor of Economics, Norwegian School of Economics, aline.buetikofer@nhh.no

Professor Kjell G. Salvanes

Professor of Economics, Norwegian School of Economics, kjell.salvanes@nhh.no

TEACHING AND RESEARCH FIELDS

Primary fields

Economics of Education, Labor Economics, Public Economics

Secondary fields

Applied Microeconomics, Health Economics, Political Economy

RELEVANT WORK EXPERIENCE

Short-term Consultant

Dr. Gabriel Lara Ibarra, World Bank

2020 - 2022

Research Assistant

Prof. Dr. Cecília Machado, EPGE Brazilian School of Economics and Finance (FGV)

2019 - 2020

Research Assistant

Prof. Dr. Maína Celidônio, Pontifical Catholic University of Rio de Janeiro (PUC-Rio)

2019 - 2020

TEACHING EXPERIENCES

Econometrics (Master), TA <i>Teaching assistant, NHH</i>	2021, 2022, 2023, 2024
Social Economics and Public Policy (Bachelor & Master) <i>Teaching assistant, EPGE Brazilian School of Economics and Finance (FGV)</i>	2019, 2020
Data Analysis in R (Private Course) <i>Teacher</i>	2019, 2020, 2021
Income Distribution and Poverty (Bachelor) <i>Teaching assistant, Federal University of Rio de Janeiro (UFRJ)</i>	2018, 2019, 2020
Microeconomics I (Bachelor) <i>Teaching assistant, Federal University of Rio de Janeiro (UFRJ)</i>	2018
Econometrics I (Bachelor) <i>Teaching assistant, Federal University of Rio de Janeiro (UFRJ)</i>	2018
Statistics II (Bachelor) <i>Teaching assistant, Federal University of Rio de Janeiro (UFRJ)</i>	2016
Macroeconomics I (Bachelor) <i>Teaching assistant, Federal University of Rio de Janeiro (UFRJ)</i>	2014

JOB MARKET PAPER

The Long-Run Impact of Increasing School Funding on Labor Market Outcomes [Draft] (*single-authored*)

This paper provides a comprehensive assessment of the impact of education finance on students' long-term outcomes and the channels through which these effects operate. For identification, the paper exploits an intergovernmental transfer reform in Norway, which generated exogenous variation in school funding based on the school-aged demographic composition at the local level in the mid-1980s. The main takeaway from the paper is that being exposed to an additional \$100 per pupil revenues for education during nine years of primary and lower secondary school leads to nearly \$300 in higher earnings. The effect is larger and more significant for students with low-educated parents and at the lower end of the earnings distribution, highlighting the policy's role in enhancing equality. At the municipal level, the funding shock led schools to hire more teachers and increase work hours among school employees, without affecting class size or spending composition. Notably, the benefits were greater in low-spending municipalities, where increased funding led to more teacher hiring and higher earnings gains. Results also show improvements in educational quality and marginal effects on cognitive abilities and migration. Though moderate, the effects on earnings are substantial enough for the policy to achieve an Internal Rate of Return (IRR) of almost 7%, and a Marginal Value of Public Funds ranging from 1.5 and 2.6.

Educational Incentives and School Choice [Draft]

(with *Samuel Hirshman*, *Kjell Salvanes* and *Alexander Willén*)

We examine how exogenous changes in external incentives for enrolling in specific high school courses influence students' academic decisions and long-term career trajectories. Using detailed individual-level register data and leveraging a Norwegian reform that removes college admission bonus points for science and advanced specialization courses, we analyze the impacts of these external incentives on students' human capital decisions. Applying a dose-response difference-in-differences approach, we study changes in high school course selection, college enrollment, and labor market outcomes. Our findings reveal that when incentives for taking science and advanced specialization courses decrease, students opt out of these courses, substituting them with easier ones that typically yield higher average grades. However, students perform only slightly better in these courses, resulting in lower overall college application scores and fewer college program options. This leads to enrollment in lower-quality college programs, a reduction in the probability of pursuing STEM degrees, and a sharp decline in the likelihood of pursuing a masters degree. Ultimately, we observe a drop in the predicted likelihood of exposed individuals securing management positions, along with substantial reductions in expected wage premiums at age 35. These results provide valuable insights into how strategic changes in educational incentives can shape the future workforce and affect both students and communities.

Balancing Efficiency and Equity: The Effects of Funding Flexibility on Local Educational Choices and their Impacts on Students [Draft]

(*single-authored*)

This paper examines whether increased flexibility in education budget choices leads to better learning outcomes. I explore this research question by leveraging an intergovernmental transfer reform in Norway during the 1980s that shifted from public grants tied to specific resource provisions—teaching hours—to needs-based block grants based on demographics. This change gave local governments more freedom in how they allocated education spending. To identify the effects of this increased flexibility, I focus on municipalities' ability to respond to the reform, measured by their distance from national class size caps before the reform. Municipalities farther from these caps had more room to adjust to the changes in incentives. I find that municipalities with greater flexibility reduced operational costs through school closures and decreased teacher numbers, leading to larger class sizes. Students in these municipalities experienced significant long-term benefits, including higher educational attainment, improved cognitive abilities, and increased earnings in adulthood. Notably, the positive effects were mainly driven by municipalities that were previously constrained from closing schools, which instead reduced the number of teachers but built more schools, keeping class sizes mostly unchanged. However, the benefits were not evenly distributed. Male students from higher-income families and those in central municipalities gained more, indicating that the reform may have unintentionally widened existing inequalities. Overall, the study suggests that increasing flexibility in education funding can enhance student outcomes, but policymakers should consider the potential for unequal effects across different groups.

PUBLISHED WORKS

How did the COVID-19 crisis affect different types of workers in the developing world?

[Published in World Development]

(with Maurice Kugler, Mariana Viollaz, Isis Gaddis, David Newhouse, Amparo Palacios-Lopez and Michael Weber)

This paper examines how the COVID-19 pandemic affected the employment of different groups of workers across 40 mostly low and middle-income countries. Employment outcomes during the crisis are tracked through high-frequency phone surveys conducted by the World Bank and national statistics offices. Our results show that larger shares of female, young, less educated, and urban workers stopped working at the beginning of the pandemic. Gender gaps in work stoppage stemmed mainly from gender differences within sectors rather than differential employment patterns of men and women across sectors. Differences in work stoppage between urban and rural workers were markedly smaller than those across gender, age, and education groups. Preliminary results from 10 countries suggest that following the initial shock at the start of the pandemic, employment rates partially recovered between April and August 2020, with greater gains for those groups that had borne the brunt of the early jobs losses. Although the high-frequency phone surveys over-represent household heads and therefore overestimate employment rates, a validation exercise for five countries suggests that they provide a reasonably accurate measure of disparities in employment levels by gender, education, and urban/rural location following the onset of the crisis, although they perform less well in capturing disparities between age groups. These results shed new light on the distributional labor market consequences of the COVID-19 crisis in developing countries, and suggest that real-time phone surveys, despite their lack of representativeness, are a valuable source of information to measure differential employment impacts across groups during an unfolding crisis.

Estimating a Poverty Line for Brazil Based on the 2017/18 Household Budget Survey

Published in [World Bank Policy Research Working Papers]

(with Gabriel Lara Ibarra and Anna Luisa Paffhausen)

This study applies the cost-of-basic-needs approach to estimate food and total poverty lines for the Brazilian case. Using detailed data on expenditures from a 2017/18 household budget survey and caloric information from the Brazilian Table of Food Composition, calorie intake is assigned to more than 1,400 items to estimate the cost per calorie for a representative group of the population. The preferred results estimate the value of the food poverty line at R\$258 (in 2018 urban Southeast prices), and the lower total poverty line (covering also nonfood necessities) at R\$455. Robustness checks show that varying the assumptions leads to qualitatively similar results. The findings are also close in value to lines found in earlier studies and the societal poverty line. Finally, this work provides a data driven validation of the income threshold used to determine eligibility for Brazil's social registry

Multiple Dimensions of Child Poverty in Brazil (UNICEF, 2023) [link]

Children in Monetary Poverty in Brazil (UNICEF, 2022) [link]

WORK IN PROGRESS

Full-day Schooling and Parental Labor Market Outcomes: Evidence from Brazil [Draft]
(with Alysson Portella)

Social Subjective Food Poverty Lines in Brazil: Combining Minimal Income Question with Food Security Status [Draft]
(with Michael França & Milena Mendonça)

Early Schooling and Maternal Labor Market Outcomes: Evidence from a New School Entry Policy Using Exact Date of Birth in Brazil [Draft]
(with Gabriel Nemer Tenoury)

CONFERENCES, PRESENTATIONS & WORKSHOPS

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| 2024 | EEA-ESEM, ESPE, Equality of Opportunity and Intergenerational Mobility A Global Perspective, Nordic PhD workshop on the Economics of Education |
| 2023 | EALE, EEA-ESEM, Meeting of the Economics of Education Association, Opportunity and Mobility Workshop, Brazilian National Meeting of Economics |
| 2022 | Nordic PhD workshop on the Economics of Education |
| 2020 | IZA/World Bank/UNU-WIDER Jobs and Development Conference, Meeting of the Brazilian Econometric Society |
| 2019 | WIDER Development Conference: Transforming economies – for better jobs, ECLAC Summer school, RIDGE summer school |

SKILLS

Software & Programming Languages	R (Advanced), Stata (Advanced) & Python (Intermediary) Portuguese (native), English (fluent), Spanish (advanced), French (intermediary), Norwegian (basic)
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