

Institutionen för pedagogik och specialpedagogik

Teacher sorting and the
opportunity gap
– A cross-national investigation of
institutional differentiation and
educational equity

av

Leah Natasha Glassow

AKADEMISK AVHANDLING

som med tillstånd av Utbildningsvetenskapliga fakulteten vid
Göteborgs universitet för vinnande av doktorsexamen
i pedagogik framläggs till offentlig granskning

Fredagen den 3 februari 2023, kl. 9:00

AK2 137, Hus A, Pedagogen, Göteborgs universitet

Fakultetsopponent: *Professor Leonidas Kyriakides, University of Cyprus*



Abstract

Title: Teacher sorting and the opportunity gap: A cross-national investigation of institutional differentiation and educational equity
Author: Leah Natasha Glassow
Language: English with a Swedish summary
ISBN: 978-91-7963-127-7 (printed)
ISBN: 978-91-7963-128-4 (pdf)
ISSN: 0436-1121
Keywords: teacher sorting, teacher quality, equity, student achievement, TIMSS, TALIS, educational policy

The overarching purpose of this doctoral thesis is to investigate the relationship between teacher sorting and educational inequity from a cross-national perspective. A secondary aim is to provide empirically grounded policy recommendations related to the findings. The data come from international large-scale assessments such as the Trends in International Mathematics and Science Study (TIMSS, 1999-2019) and the Teaching and Learning International Survey (TALIS, 2018), and include 32 and 46 education systems, respectively, with a special focus on mathematics and science teachers. The main analytical approaches include descriptive statistical methods, panel data regressions with country fixed effects, and hierarchical generalized linear modelling.

The dissertation is comprised of four empirical studies. Study I finds that the magnitude of sorting inequity varies by the country and teacher qualification in focus and that few countries show widening inequities in the teacher qualification gaps. Study II investigates the impact of teacher sorting on mathematics achievement inequity and finds that more pronounced sorting by specialization moderately exacerbates inequity in student achievement after controlling for socioeconomic school segregation. Studies III and IV investigate policy- and institution-level correlates of teacher sorting and teacher turnover, respectively. The results of Study III show a general pattern of mixed results related to stratification, accountability, autonomy, and competition, depending on the teacher quality indicator in focus. Study IV found a more pronounced relationship between teacher turnover intentions and classroom SES in school systems with more performance-driven accountability systems.

The results point to several key conclusions. First, there was evidence of inequity in teacher sorting across educational systems to varying degrees. The patterns varied depending on how teacher qualifications and socioeconomic status were measured. Next, the studies provided mixed results regarding school autonomy, accountability, competition and stratification, indicating that the determinants of socioeconomic teacher sorting do not easily generalize according to cross-national patterns. School competition was the single system-level variable to be associated with both qualifications. Performance data-based accountability (teacher appraisal) was however consistently associated with higher turnover intention rates in low-SES settings. With respect to inequity in student outcomes, socioeconomic teacher sorting by specialization was found to have a modest effect. While incentivizing the most competent teachers to work in socioeconomically disadvantaged settings is an ongoing challenge for many educational systems, building upon the content knowledge of underqualified mathematics teachers currently working in hard-to-staff settings is a worthwhile endeavor. Last, while reducing teacher sorting by specialization is likely to alleviate some degree of inequity in educational outcomes, it is not a panacea in the wider context of rising income inequality and social segregation in many educational systems.