

Research Summary

Steven McMullen
The University of North Carolina at Chapel Hill

The Impact of Homework Time on Academic Achievement

Job Market Paper Abstract:

This paper demonstrates that the amount of time students spend on homework plays a central role in determining academic success. A policy investment which takes advantage of this fact can do more to increase academic achievement than similar investments in traditional policy options such as decreasing class size or increasing teachers' wages. This study uses longitudinal data on students, teachers and school characteristics to estimate the impact of homework time, and the impact of the amount of homework assigned, on mathematics achievement. Previous studies have not been able to accurately estimate the impact of homework because of important omitted variables and measurement error, which strongly bias the estimated impact of homework time. This paper, however, uses an instrumental variable estimate with student fixed effects to account for both time-varying and time-invariant unobserved characteristics and inputs. This technique produces estimates of the impact of homework time on academic achievement that are much higher than those of previous studies. Moreover, these findings suggest that a policy change of assigning extra homework each week primarily improves the achievement of low performing students and students in low performing schools. This suggests a possible policy solution to the gap in achievement between high and low performing students.

Working Paper: The Labor Market Determinants of Student Homework Time in High School

This paper investigates the extent to which labor market conditions influence students' study habits in high school. Variation in labor market conditions over time and across states is used to establish that even short run changes in labor market incentives do influence the amount of time students spend on homework. Individual fixed effects are used to control for geographic labor market selection. This research provides an explanation for a portion of the geographic variation in academic achievement.

Future Research Agenda:

As a complement to my dissertation work, I plan to pursue research that documents the extent to which student incentives are influenced by education policies. Specifically I will explore the labor market return to various education choices including studying, attendance, and the extent to which this return varies based on other school characteristics and policies.

In addition to this education research, I also have two health related projects in progress. First, I am working on estimating the burden of disease in developing countries in terms of lost labor productivity. Second, I have done work to estimate the impact of language barriers on health care consumption and effectiveness among immigrants to the US.

Finally I have a strong interest in the economic analysis of immigration and the assimilation of immigrant populations. I am planning projects that will estimate the labor market return to language acquisition, and explore policies that impact the academic performance of immigrants in U.S. secondary education.