

University of Kentucky

Gatton College of Business and Economics

Institute for the Study of Free Enterprise



INSTITUTE FOR THE
STUDY OF
FREE
ENTERPRISE

Study finds spending productivity in public education has declined

- **The per-pupil spending in public education has nearly doubled in the past forty years**
- **However, the productivity of additional spending as measured by improved National Assessment of Education Progress (NAEP) test scores, has declined**

The large increases in spending devoted to public schools in the past several decades have necessitated the examination of the effectiveness of this spending on education-related outcomes. Rex Bray, student at the Harvard Law School, and John Garen, ISFE affiliate and BB&T Professor of Economics at the University of Kentucky, document the productivity of education spending in the last forty years on increased NAEP test scores in math and reading.

In the study, their highest estimates find that an additional thousand dollars in spending per pupil results in a .7 point rise in the grade 4 NAEP reading score (average score 213), and 1.2 point rise in the grade 4 NAEP math score (average score 231). In grade 8, the study estimates a .25 point rise in the grade 8 NAEP reading scores (average score 258), and a 1.4 point rise in the grade 8 NAEP math scores (average score 274). In each case productivity – measured by increased score per thousand dollars spent per pupil – has declined since 1970.

In terms of the effectiveness of different sources of funding, the study notes, “We examine the influence of federal, state, and local funding separately, and generally find the effect of local funding to be the largest and most robust. However, the magnitude of the effects remain very small.”

The authors continue, “While it is appropriate to be cautious regarding causality with respect to funding and outcomes, the continued decline in educational productivity seems very evident. Schools are predominantly government-sponsored organizations, often with little competition, and the literature is quite clear regarding incentive problems in these types of organizations. The lack of efficiency should not be surprising. We suggest looking for

improvements in educational performance by turning to alternatives that embrace or emulate private-sector, competitive organizations.”