

DISSERTATION PROPOSAL

Three Essays on the Economics of Education

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Thursday, February 14, 2013

12:00 pm

2503 Hamburg Hall

This thesis is composed of three essays on the economics of education.

Chapter 1 analyzes the effectiveness of a battery of formative assessments, 4Sight, which are broadly aligned with annual assessments required by NCLB. These formative assessments are designed to provide teachers with feedback on student performance throughout the year in order to raise end of year student test scores. Methodologies for evaluating the effect of using 4Sight on test score outcomes are drawn from the program evaluation literature, and include individual and school-level OLS, quartile regressions, and probit regressions, as well as matching at the school-level. Micro-econometric results show that 4Sight had no discernible effect on math scores and a small negative effect on reading scores in its first year in Pennsylvania. Policy recommendations include continuing a smaller-scale trial period of 4Sight for several more years in conjunction with careful, improved alignment between 4Sight and PSSA, ongoing empirical analysis of its effects, and incorporating more opportunity for feedback to teachers and students to improve 4Sight as a formative assessment. Perhaps the most surprising finding of this paper is that while 4Sight has a very small effect on student outcomes, students receiving tutoring under NCLB are significantly and between four and nine percent less likely to pass their exams, even after controlling for all covariates, including eligibility for tutoring. This implies that the publicly-funded tutoring is actually disadvantaging those students who receive it. These results should serve as a cautionary example to school, district, and state-level policy-makers when choosing interventions designed to improve student performance on tests tied to NCLB.

Teacher strikes and the right of public employees to collectively bargain are topics of frequent and heated debate in the public sphere, with little research available to inform the debate. In firms, the negative relationship between labor unrest and reduced productivity is well-documented; the purpose of this study is to explore whether there exists a similar, measurable relationship between labor strife and productivity in public schools. In Chapter 2, I use regression analysis to analyze data that includes teacher strikes and expired contracts over a seven-year period in Pennsylvania, and I find that the pass rates on a district-level cohort's math tests decrease by about 1-2% in the year of a strike and by about 0.5% during a year that teachers work under an expired contract. Additionally, cohorts experiencing a strike during their 11th-grade year realize about a 2% decrease in their graduation rate. In addition to improving upon the methodologies of previous teacher strike papers, this paper distinguishes between productivity loss due to strikes and that due to lengthy ongoing labor disputes that do not necessarily end in strike. Policy implications include making administrators aware of the possible effect of a strike on graduation rates and the need for better collection of data on collective bargaining by state agencies.

The past ten years have seen a boom in the availability of post-secondary educational services offered by and procured from for-profit institutions, and for-profit education is currently a hot topic in the news. Coverage frequently asks if for-profit schools take advantage of their students and the federal government via predatory marketing, stretching truths regarding accreditation, and receiving upwards of 80% of their revenues from federal student loans. On the other hand, the widespread nature of these schools, together with their penchant for offering distance learning, offer the promise of higher-educational services to a population that has been limited in the past by their geography and the physical location of higher-educational facilities that offer similar programs of study, such as community colleges. Essential to determining the social and private costs and benefits of for-profit higher education is an understanding of its causal effect on the earnings, continuing education, and debt of its students. In chapter 3, I plan to investigate the causal effect of for-profit education on earnings, continuing education, and debt. Using data on individuals' earnings, education history, job history, and personal characteristics from the NLSY97 Geocode merged with data on the colleges and universities that these individuals attended, including for-profit status and geographic location, from the Integrated Postsecondary Education Data System (IPEDS) by academic year of attendance I have derived descriptive statistics. Further proposed work includes detailed descriptive analysis of the data, econometric analysis of merged data attempting to identify the causal effect of for-profit education on these outcomes, comparing geographic locations of students to the schools they attend to identify distance-learners, and to identify public schools in the vicinity of students attending for-profit schools and attempt to investigate the options students had prior to making an enrollment decision.