

Part A – Questions/Problems

Question 1

Consider the following facts:

- The return to a year of schooling is 0.06 (or 6%)
- There are 3,000,000 children born each year, which means there are 3,000,000 kids in each grade from kindergarten through grade 12 (for simplicity, ignore the problem of dropping out of high school)
- School quality is currently as follows
 - The average pupil-teacher ratio (class size) is 25:1
 - The average teacher salary is \$50,000 per year
- Increasing school quality increases the rate of return to education in the following ways
 - Lowering the pupil-teacher ratio by 1 student, to 23:1 increases the rate of return to a year of schooling to 0.062
 - Increasing the average teacher salary by \$2000 per year increases the rate of return to 0.061

Given these costs and returns, is decreasing in class size or increasing teacher salaries a more cost effective method for raising the quality, and hence return, to education?

Question 2

The Chicago high stakes testing policy 3rd, 6th, and 8th graders are required to meet a minimum standard to advance to the next grade. If they do not meet this standard at the end of the school year they must attend summer school. If they do not meet the standard at the end of summer school they must repeat the grade the following school year. At the same time, schools that do not have a sufficient number of students meeting the standard are subject to sanctions. In particular, teachers and administrators can be moved to other schools and/or dismissed.

- (a) Why might the institution of these standards improve teacher performance?
- (b) Why might the institution of these standards impact student performance?
- (c) Are there possible negative effects of this policy in terms of teacher behavior/choices/curriculum?
- (d) What impact do you think this policy might have on high school graduation rates, and why.

Question 3

In a 1995 paper in the Quarterly Journal of Economics, “Finishing High School and Starting College: DO Catholic Schools Make a Difference,” Evans and Schwab report the following statistics:

	Who attend a public high school	Who attend a Catholic high school
Fraction of students graduating from high school	0.79	0.97
Fraction of students entering college	0.32	0.55

- (a) What is the implied percent increase in high school graduation from attending a Catholic high school?
- (b) What is the implied percent increase in high school graduation from attending a Catholic high school?
- (c) Why are these rates different across public and private high schools attenders? Make sure to discuss the possible production function differences as well as the possible selection difference.
- (d) Do these results suggest that we should send all children to Catholic schools? Make sure to defend you answer with facts and/or economic theory.

Part B - Possible Essay Questions

Group 1 (before the midterm – one question will be randomly selected)

- (1) Should the government subsidize education?
- (2) Why might educational quality impact economic growth?
- (3) Why does the social return to education differ from the private return?
- (4) Is there any evidence that education serves as a productivity signal?

Group 2 (after the midterm – one question will be randomly selected)

- (1) How should we model the impact of teachers on human capital accumulation?
- (2) Can school vouchers improve educational outcomes?
- (3) Is preschool a good investment for individuals and/or society?
- (4) How strong is the evidence in favor or against the efficacy of single-sex classes/schools?