

EXAM #1

Economics 412, Spring 2021

Instructions

The exam will last for 50 minutes. Each question is worth one point, there are a total of 34 questions.

Tips for Getting a Good Exam Score

- **MANAGE YOUR TIME WISELY** – if you are banging your head against a wall on a question, move on! Do the easy questions first.
- Select your answers on the google form (link will be shared by proctor at the time of the test)

Honor Regulations

- You must not discuss the exam with anyone who has not yet taken it.
- You must not share this exam with future students.
- You may use a simple calculator, but they shouldn't be necessary.
- You must work alone on the exam.

True/False:

a) True

b) False

1. "An Aggie does not lie, cheat, or steal or tolerate those who do." I will follow the Aggie code of Honor. Mark this question "True" to commit to taking this exam honestly (it is also worth a point on the exam!).
2. High levels of inequality are a result of a market failure
3. Two variables are causally related if they move together
4. A key concern in interpreting the effect of a treatment in observational data is that we do not know what caused an individual to receive treatment
5. A valid counterfactual is provided by the outcome of an individual prior to treatment
6. Difference-in-differences approach compare the change in an outcome for treated individuals against the change for untreated individuals who are otherwise similar
7. If taxicab drivers work each day until they reach a specific income target, their labor supply is downward sloping.
8. Dead weight loss always exists if the private market equilibrium is different from the socially optimal equilibrium.
9. Extreme congestion and traffic occur because roads are a pure public good.
10. The Coase theorem requires that property rights be given to the party who values them the most.
11. Goods that cause negative externalities are overprovided by the private market.
12. The average gas tax in the United States is roughly equal to the estimated negative externalities from gas consumption.
13. One externality of driving is that exposure to vehicle exhaust results in more low-birthweight children.
14. Civic participation is a potential social return to education
15. Human capital is an individual's stock of skills, which may be increased by education
16. Under the signaling model, investments in education are wasteful

Multiple Choice

17. Which of the following are or cause market failures?
- a. Externalities
 - b. Low prices
 - c. High prices
 - d. High costs of production
 - e. All of the above
18. In examining the relationship between education and earnings, one might be worried that those with greater ability are more likely to pursue education and have higher earnings. In this case, ability causes:
- a. Exogenous variation
 - b. Omitted variable bias
 - c. Large standard errors
 - d. Natural variation
 - e. No problems
19. If a good becomes less valuable as a result of one consumer's use of the good but does not become worthless to other consumers, that good is:
- a. purely excludable
 - b. partially excludable
 - c. purely rival
 - d. partially rival
20. The under provision of public goods by a private market is characterized by the:
- a. holdout problem
 - b. assignment problem
 - c. free rider problem
 - d. irrationality problem
21. In a market that produces pollution as a negative externality, a tax will result in the social equilibrium quantity if the tax is:
- a. greater than externality
 - b. levied on producers
 - c. slightly less than externality
 - d. equal to the externality
22. In the market for cigarettes Price=5 and Quantity=1000 packs. There is a negative externality of \$2 per pack and the Socially Optimal Quantity=700. Assuming that cigarettes are unregulated (and curves are all linear), what is the Dead Weight Loss in this market?
- a. 0
 - b. 600
 - c. 275
 - d. 300
 - e. None of the Above

23. The three problems facing a government trying to determine the optimal quantity of a public good include all of the following EXCEPT:
- a. preference revelation because individuals may not tell the government their true valuation of the public good.
 - b. preference knowledge because individuals may not know their true valuation of the public good.
 - c. preference implementation because it is hard to produce public goods in practice.
 - d. preference aggregation because it is difficult to add up the preferences of millions of citizens.
24. Which factor is likely to enable private market forces to provide more of a public good than it might otherwise provide?
- a. the existence of free riders who enjoy benefits but refuse to pay
 - b. little to no difference among individuals in their demand for the public good D
 - c. the existence of altruistic members of society
 - d. the fact that the benefits of the public good are available to everyone
25. Based on our discussion in class, which of the following may be reasons that high achieving low-income students are less likely to enroll in selective institutions than high achieving high-income students:
- a. They aren't as qualified to attend
 - b. They are charged at the same rates as high-income students and cannot afford to attend
 - c. They are unaware that these institutions charge substantially lower rates to low-income students
 - d. They don't perform as well on standardized tests
 - e. All of the above
26. Which of the following are potential drawbacks to the use of school vouchers
- a. May result in segregation
 - b. Are largely a transfer to rich families
 - c. Consumer sovereignty
 - d. All of the above
 - e. a and b
27. Which of the following are predictions of the signaling model?
- a. Those with more education are more productive
 - b. Those with higher education will earn more
 - c. Education will be obtained early in life
 - d. All of the above
28. Which is a reasonable test to distinguish human capital vs. signaling
- a. Measure whether educated people are more productive
 - b. Measure productivity before and after education
 - c. Test whether higher ability people get more schooling
 - d. Find identical people and randomly assign one to go to college. Compare earnings outcomes.
 - e. None of the above

Multipart Questions:

The implementation of E-ZPass in Pennsylvania and New Jersey allowed drivers to pay for toll roads electronically without using cash or card. This decreased average commute times, and reduced both traffic and pollution near the toll booths. In the assigned paper, the authors compared the difference between the treated and control group before E-ZPass to the difference between the two groups after E-ZPass.

29. The assigned paper focuses on the negative externalities of toll booths that were reduced by E-ZPass. Which externality is the main focus of their paper?
 - a. Low birthweight caused by pollution
 - b. Value of time lost due to traffic
 - c. Poor adult respiratory health from breathing vehicle exhaust
 - d. High noise levels from busy roadway
30. Which of the following would give you reason to doubt their research results
 - a. People who lived near toll plazas have lower income and education levels than those living far from toll plazas.
 - b. Many highly educated individuals moved to locations near toll plazas after E-ZPass was implemented.
 - c. Even drivers who did not enroll in E-ZPass experienced faster commute times as a result of the policy
 - d. Most toll booths were located near fast food restaurant chains
 - e. None of the above.

Solis (2013) investigates the effect of credit (loan) access on college enrollment in Chile. Recall that students with a PSU score above 475 were eligible for loans.

31. Credit constraints or issues with credit access are an example of a:
 - a. Subsidy
 - b. Tax
 - c. Market Failure
 - d. Positive Externality
 - e. Negative Externality
32. Solis (2013) is using a difference-in-differences design to identify the effects of loan availability.
 - a. True
 - b. False

33. In Figure A below, the PSU score is:
- The discontinuity
 - A measure of college enrollment
 - Discontinuous
 - The running or assignment variable
 - The outcome

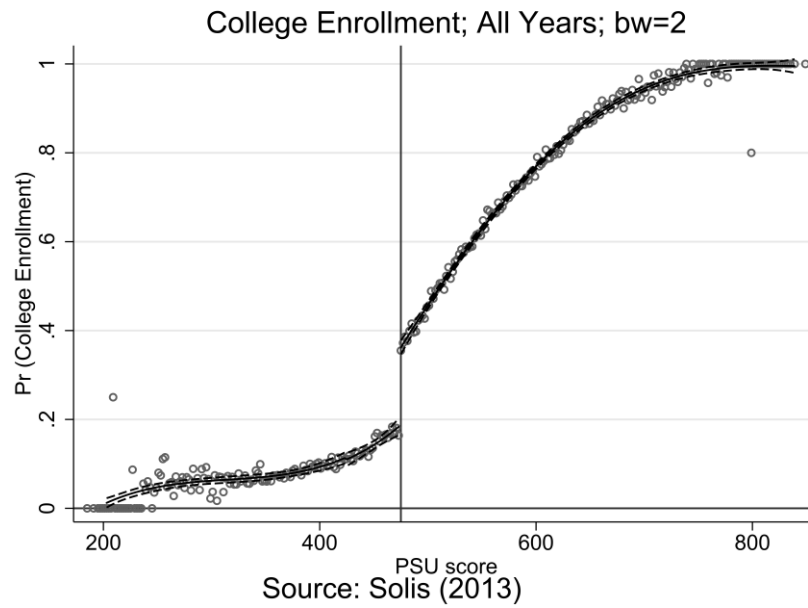


Figure A

34. Figure A suggests that credit constraints in Chile are:
- Not present
 - Present for all students
 - Present for some students in the neighborhood of PSU scores around 475
 - Present for all students in the neighborhood of PSU scores around 475
 - None of the above