

Name: _____

Row: _____, Seat: _____

First Examination – Economics 121 C/F
Prof. Anthony D. Becker – St. Olaf College
February 25, 2003

Instructions:

You will have (virtually) unlimited time to complete this exam.

The use of books and notes is prohibited. You may use a calculator, pencils, pens, etc. All other materials are to be out of reach and out of sight.

Answer only on the graph paper (question 1) and blank sheets provided.

Write only on one side of each page and begin each question on a new page.

When you have finished, staple these pages to your answers as a coversheet.

Pledge:

I pledge my honor that during this quiz I neither gave nor received assistance and that I saw no dishonest work.

Signed: _____

I have not signed the pledge intentionally. (Check only if appropriate.)

1. (20 points) In the table below is some data on shares of total income by households for Rice and Hennepin Counties in Minnesota.

a) On the graph paper provided, draw the Lorenz curve for Rice County. (6 points)

| County | Lowest (first) Quintile | Second Quintile | Middle (third) Quintile | Fourth Quintile | Fifth Quintile | Share of income of the top 5% |
|----------|-------------------------|-----------------|-------------------------|-----------------|----------------|-------------------------------|
| Rice | 5% | 10% | 18% | 24% | 43% | 18% |
| Hennepin | 4% | 9% | 16% | 22% | 49% | 22% |

b) If the GINI coefficient for Rice County is 0.397, is the GINI for Hennepin higher or lower? Explain why and what this means. (6 points)

c) The income level of a family at the top of the lowest (first) quintile in Rice County is about \$17,500. In Hennepin County it is about \$20,000. The median household income in Rice Co. is about \$29,600 while in Hennepin Co. it is \$35,700. (The median is a measure of the average.)

In class we discussed four different philosophies of equity in income distribution. Choose one and explain in which income distribution – Rice or Hennepin – someone with that philosophy would prefer. (8 points)

2. (20 points: 10 points each) The following questions are based on the *Classic Readings in Economics*. Answer briefly in a paragraph or two.

a) Economies (economists like to think) use land, labor, and capital as “factors of production” (inputs) to produce goods and services. The goods and services are exchanged for money which is used to pay for the factors of production. This leads to a circular flow of income between businesses and households. Explain how a system of

markets developed without much production as described by Radford in “The Price System in a Microcosm: The P.O.W. Camp.”

b) Bertrand de Jouvenel, in “Rent Control: An Example of Price Fixing,” describes the system of rent controls in Paris in the years immediately following World War II. He states that due to rent controls “middle class apartments ... frequently cost from \$1.50 to \$2.50 per month,” equivalent today to about \$30. Nonetheless, there was a great shortage of apartments and when apartments became available, it often took a large bribe to get in. Explain how rent controls in Paris were affecting the market for apartments. Provide a graph to assist in your explanation.

3. (20 points) Every year when your professor was an undergraduate, the Grateful Dead would hold a concert in Cameron Indoor Stadium, capacity 7,000. (Capacity is about 5,800 for basketball, not that it matters.) They offered their tickets at a low price, equivalent to about \$20 today.

a) Draw a graph showing the supply curve for tickets. *Hint: it is not a straight line.* (5 points)

b) At this reasonable price, there was a severe shortage of tickets. Show a demand curve on the graph that reflects this fact. (5 points)

c) About 20% of tickets were bought by “scalpers” who resold them to Grateful Dead fans (Deadheads). Show the price the scalpers could get for the tickets on your graph. (5 points)

d) If they knew the price was too low to balance quantity supplied and quantity demanded, why didn’t they raise it? (5 points)

e) Extra Credit: There was trouble ahead, but what was behind Casey Jones as he drove that train?

4. (20 points) Consider the market for a private liberal arts education in the United States.

a) (5 points) What conditions are necessary for us to use the model of supply and demand to describe this market? Are they met?

b) (15 points: 5 points each) For each of the following events, provide a graph showing the effect on price and quantity in the market. Assume the conditions above are met.

- i. The federal government increases funding to student aid programs such as federal work study, guaranteed student loans, and need-based grants.
- ii. State governments eliminate the tax-exempt status of college lands making colleges pay property taxes for the first time.
- iii. A number of large state universities make major cuts faculty and staff positions causing many professors to stand on street corners with signs saying, “Will teach for Internet access.” At the same time, the state universities raise tuition to try to reduce the number of students (now that they don’t have the faculty to teach them).

