Econ 311 Fall 2002
Midterm Exam

This exam is worth 35 percent of your final grade and is divided into 35 points. The value of each question will be given in parentheses after the end of the question. You must answer all questions on the exam; no question is optional and there are no bonus points. Please do not answer questions I am not asking. Use as much paper as you like, but remember to staple them together when you turn in your answers.

WHAT IS YOUR NAME? WRITE IT ON ALL SHEETS YOU ARE TURNING IN. (1)

Part 1: Warm Up

Consider Equation 8 from *The Political Economy of the Cotton South*:

$$\ln\left(\frac{V}{L}\right) = \underset{}{4.92} + \underset{(1.84)}{0.009}SQ + \underset{(4.08)}{0.50}CS + \underset{(0.89)}{0.00008}IA$$

Where:

ln(V/L)	= Value of the Marginal Product in Dollars
SQ	= Measure of Soil Quality
CS	= Percentage of total acres on the farm used to grow cotton
IA	= Total acres on the farm

1A. Which variables are dependent variables? Which are independent variables? (1)

1B. Which coefficients are statistically significant? (1)

1C. What do we assume about statistically insignificant coefficients? (1)

1D. Suppose farm A is exactly 100 acres larger than farm B but is otherwise identical. Based on these regression results, do you expect the VMPL on these two farms to be different? If so, by how much and which farm has the higher VMPL? (1)

1E. Suppose farm C uses 10 percent more of its acres to grow cotton than farm D but is otherwise identical. Based on these regression results, do you expect the VMPL on these two farms to be different? If so, by how much and which farm has the higher VMPL? (2)

Part 2: Determinants of Antebellum Growth

2A. What are the three regions Guy Callender divided the antebellum United States into when he made his framework for understanding US Economic Growth? What products or services did he and Douglass North say each of these regions produced? (2)

2B. In isolation, each of these regions *could* have been self-sufficient - that is, each could have functioned as a regional economy on its own and provide all needs for itself. What economic concepts are driving economic growth in the North-Callender framework? What two broad classes of obstacles might prevent such growth? (2)

2C. Draw a Fogel-Rutner diagram showing the optimal allocation of labor between the two nonslave regions in the North-Callender framework. You must have the following for full credit: a VMPL label for each region on the correct axes, some indication of what the total fixed labor force available is, labels on each demand curve, and indicate the point that tells you the equilibrium wage and quantity of labor in each region. (3)

2D. Suppose the federal government sells bonds to British investors to fund river navigation improvements. This allows wheat farmers in the interior to access new markets because now the other two regions can buy from them. Draw a supply and demand diagram showing the effect of this increase in demand from the point of view of wheat farmers. (2)

2E. In particular, we are interested in how the price of wheat is affected. Price is part of VMPL. Draw a new Fogel-Rutner diagram like the one you did for 2C (if you simply add to the old diagram, you get ZERO - I want a clean copy to look at), and on this new copy show the effect of the price change from 2D. Make sure it's clear to me what you are shifting and where it is shifting to. (2)

2F. In the Fogel-Rutner diagram you just did in 2E, you know what the combined GDP for the nation (sum of both regions) is before and after the price change. Has this combined GDP increased or decreased? On the new copy you just did in 2E, shade or stripe or do something to indicate on the diagram what the net increase or decrease in combined GDP is graphically. (2)

2G. What is the difference between how we measure intensive and extensive growth? Which do economists prefer as a measure of economic growth? (2)

2H. North and Callender were trying to explain economic growth. How do you know that the river improvements have increased the measure of economic growth economists like in part G and not just the "wrong" measure? Hint: Read 2C carefully and see what it says about population. (1)

Part 3: The Harvest Labor Constraint

3A. How do the mean and median farm sizes in the Cotton South and the Free Northwest compare with each other? I don't care what the actual numbers are - just tell me which is bigger or if they're about the same. What is Wright's explanation for the similarities and differences observed in the means and medians - what special group of Southern farms is driving the results? (2)

3B. Briefly describe the Harvest Labor Constraint. What is being constrained and what does the harvest season have to do with this? What kind of farms do Northwestern farmers end up running? How is the situation in the Cotton South different? (4)

3C. There are two major factor inputs for 19th Century agriculture. What is the relatively scarce factor in the US in the 19th Century? (1)

3D. Wright says that "as a general rule, slave labor followed the market." (P.12) Most slaves in the Western Hemisphere were used to grow very valuable sugar. How might we determine the price sugar plantation owners were willing to pay for slaves? You may describe it in a sentence or give the equation - either is fine. (1)

3E. What are the cash crops in the Northwestern and Southern regions? Which crop drew higher prices? Why did farmers in one region decide slavery was "worth it" but not farmers in the other? Hint: If you were in the US, what determined the price of slaves and are they expensive? (2)

3F. In the region with slaves, why does it make sense that Wright finds a very high concentration of slave

ownership, land ownership, and cash crop production? (1)