
Final Exam

You have until 5pm to complete the exam, be certain to watch the clock and use your time wisely. Answer questions completely but concisely. Including additional incorrect information in an otherwise correct answer may result in a loss of points. As a rough rule of thumb, five points typically take two well-crafted sentences to answer correctly and completely. So a 10-point question typically requires four concise sentences to answer.

You may refer to your notes, the lectures slides, readings and any other materials posted on our course Blackboard site. You may access either printed or electronic versions of these materials. You may not use the internet to search for additional information during the exam and you may not seek the help of any other individuals.

Good luck!

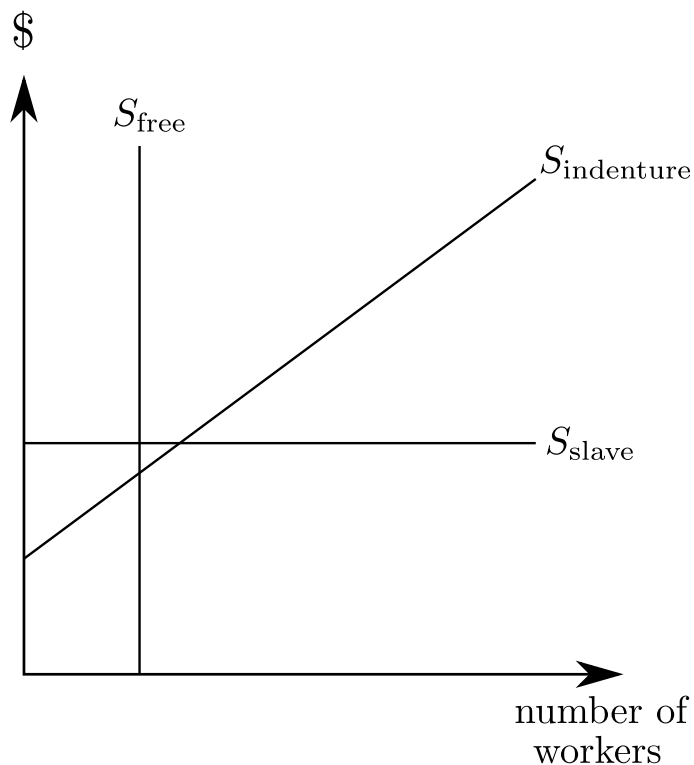
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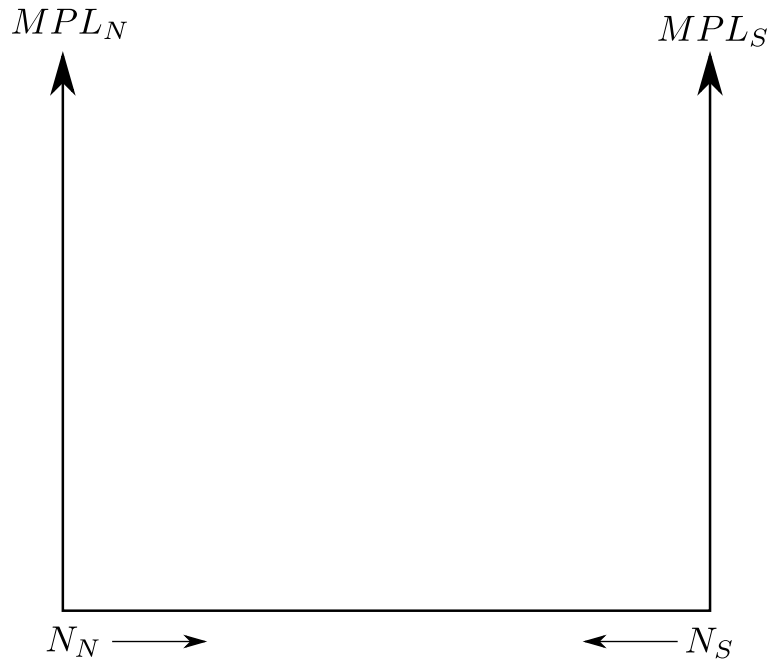
1. (30 points) Recall that Abramitzky, Boustan and Eriksson (2014) found that cross sectional data overstated the earnings convergence of immigrants over time relative to repeated cross section data and that the repeated cross section data overstated earnings convergence of immigrants over time relative to panel data.
 - (a) Explain why earnings convergence for immigrants appears larger during the Age of Mass Migration when using a single cross section of census data as opposed to repeated cross sections of data. Your answer should include details specific to migration patterns during the Age of Mass Migration. Answer in no more than three sentences.
 - (b) Explain why earnings convergence for immigrants appears larger during the Age of Mass Migration when using repeated cross sections of census data as opposed to panel data. Your answer should include details specific to migration patterns during the Age of Mass Migration. Answer in no more than three sentences.
 - (c) We discussed the Westward migration of the US population over the 1800s. Suppose that we wanted to determine the returns to this westward migration using federal census data. Explain how you would go about doing this, being certain to identify the following:
 - i. What outcomes you would focus on keeping in mind the limitations of federal census data at the time,
 - ii. What groups of people you would compare keeping in mind the demographics of Westward migration at the time, and
 - iii. Whether you would use cross section, repeated cross section, or panel data.

Be certain to fully explain the reasoning behind each aspect of your proposed approach. Both Abramitzky, Boustan and Eriksson (2014) and Collins and Wanamaker (2014) should be helpful in guiding you and you are welcome to reference them in your answer.

2. (20 points) The graph below shows the labor supply curves for free laborers already in the colonies (S_{free}), indentured servants coming from Europe to the colonies ($S_{\text{indenture}}$) and slaves shipped across the Atlantic from Africa (S_{slave}). The horizontal axis gives the number of workers and the vertical axis gives the wage in the colonies.
- Suppose that initially the equilibrium composition of the colonial workforce includes only indentured servants and free laborers. Draw a demand curve on the figure consistent with this equilibrium, labeling it D_a . Also show the equilibrium number of free laborers (L_{free}^a) and indentured servants ($L_{\text{indenture}}^a$) on your graph.
 - Now suppose that demand for tobacco in Europe increases. On the graph, show how this will change the equilibrium composition of the colonial workforce. Label your new equilibrium numbers of workers L_{free}^b , $L_{\text{indenture}}^b$, and L_{slave}^b (note that depending on how you answer, some of these quantities may be zero). Provide a written explanation of any curves that shift as a result of this increased demand for tobacco.
 - Explain how your answer would have differed if there was an increase in demand in Europe for wheat rather than tobacco (note that Europeans consume both domestically grown and imported wheat).



3. (25 points) We discussed multiple reasons for the delay of the migration of black individuals from the South to the North despite wages being higher in the North. One of these reasons we considered was the discrimination black workers faced in housing markets. In this question, we will explore the economic consequences of that discrimination using the graph below.



The graph looks at the marginal product of labor in the North on the left vertical axis and the marginal product of labor in the South (MPL_S) on the right vertical axis. The number of workers in the North (N_N) is measured from left to right on the horizontal axis (so at the left end of the axis, N_N is equal to zero) and the number of workers in the South (N_S) is measured from right to left. The width of the horizontal axis is equal to the total combined population of the South and North.

- On the graph, draw the marginal product of labor curve for the North and the marginal product of labor curve for the South. Explain your choice of intercepts and slopes (i.e., why is the intercept of one MPL curve different or the same as the other and why are the slopes different or the same).
- Show an allocation of workers on the graph, (N_N^*, N_S^*) , that is consistent with our observation that wages in the North were higher than wages in the South.
- Show the efficient allocation of workers on the graph, (N_N^{eff}, N_S^{eff}) .

- (d) Suppose that the only thing keeping us at your allocation in part (b) is housing discrimination against black individuals. On the graph, show the loss in national output caused by this discrimination.
- (e) In no more than four sentences, explain two reasons other than housing discrimination that we might have been stuck at the inefficient allocation of labor you found in part (b). Your reasons can relate to white workers, black workers or both and should be specific to the early 1900s US economy.

4. (25 points) Several times in class, we discussed Robert Fogel and Douglass North sharing the Nobel Prize for their groundbreaking work related to economic history. Recall that they had two very different approaches. As an oversimplification, Fogel emphasized the power of bringing quantification, economic modeling and statistics to historical questions while North emphasized the importance of understanding the historical context and institutions that shape economic behaviors and outcomes.
 - (a) Think of one paper we covered in class that you felt excelled at Fogel's approach to economic history but fell short in terms of North's. Be certain to explain what Fogel-style aspects of the paper were particularly convincing, why more North-style work is needed to reach proper conclusions and what the authors could do to address the shortcomings on the North-style elements. The paper can be a required or non-required reading and can come from any point in the semester. Your answer should be no more than six sentences long.
 - (b) Think of one paper we covered in class that you felt excelled at North's approach to economic history but fell short in terms of Fogel's. Be certain to explain what North-style aspects of the paper were particularly convincing, why more Fogel-style work is needed to reach proper conclusions and what the authors could do to address the shortcomings on the Fogel-style elements. The paper can be a required or non-required reading and can come from any point in the semester. Your answer should be no more than six sentences long.