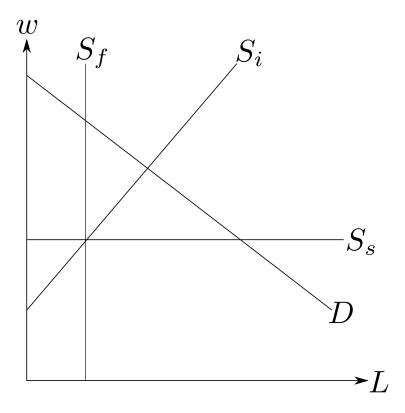
You have until 3:20pm to complete the exam, be certain to use your time wisely. Answer all questions directly on the exam. Calculators may not be used. Remember to put your name on the exam. Good luck!

## Name: ID Number:

1. (10 points) Explain why Fogel found it important to determine which agricultural land would not have been used for market production in the absence of railroads. By including the agricultural products from this land in his analysis, was Fishlow overstating or understating the social savings from railroads in the United States? Be certain to fully explain your answer.

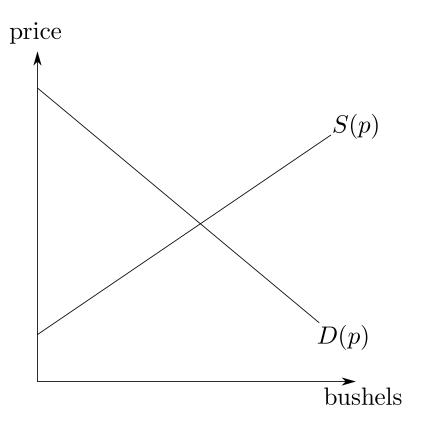
2. (25 points) The graph below has labor on the horizontal axis and the colonial wage on the vertical axis. The demand for labor in the colonies is given by the curve D. The supply of free labor is  $S_f$ , the supply of indentured servants is  $S_i$  and the supply of slaves is  $S_s$ . Use this graph to answer the questions below.



- (a) Briefly explain why the supply of indentured servants is an upward sloping curve and why the supply of slaves is a flat line.
- (b) On the graph show what the equilibrium wage will be in the colonies and the equilibrium mix of worker types in the colonies (number of free laborers, number of indentured servants, number of slaves).
- (c) Suppose that regulations on the shipping of slaves change such that slaves can no longer be shipped directly from Africa to the colonies but must instead be shipped from Africa through the West Indies and then to the colonies. Give a brief written explanation of how this change will affect the curves on the graph. On the graph, show the effects this change would have on the equilibrium colonial wage and the equilibrium mix of worker types.

Midterm 2 3

3. (25 points) Below is a graph showing the supply curve for grain from Midwestern farmers without shipping costs and the demand curve for grain in New York City. Use the graph to answer the questions below.



- (a) Show the effect that the completion of the Erie Canal would have on the market price of grain in New York City. Label the price before the completion of the canal  $p_o$  on the graph and label the price after the completion of the canal p' on the graph.
- (b) On the graph, show the change in producer surplus for the Midwestern farmers as a result of the completion of the Erie Canal.
- (c) Identify one group other than Midwestern farmers or East Coast consumers that benefited from the completion of the canal and one group that was harmed by the completion of the canal. For each example briefly explain why the group was helped or harmed by the completion of the canal.

4. (15 points) Explain three ways in which land grants could promote the growth of railroads. Two of these should relate to ensuring the willingness or ability of investors to finance railroad construction. The third should relate to achieving the socially efficient level of railroad service rather than the inefficiently low level of service that would be provided by a monopoly.

Midterm 2 5

5. (15 points) There are a variety of competing explanations for the causes of the Panic of 1837. What evidence would support the claim that it was declining consumer confidence in banks that led to the panic? What evidence would suggest that it was irresponsible lending on the part of banks that led to the panic? In answering each question be certain to clearly identify the variable you would need to observe and the trends in that variable that would identify either change in consumer confidence or irresponsible lending as the culprit.

6. (10 points) How did fractional reserve banking enable banks to expand the money supply in the 19th century? What problems did fractional reserve banking create for the stability of the banking sector in the 19th century and why are those problems no longer a major concern in the modern American banking sector?