OLD MIDTERM #2 (FALL 2000)

PART I.   Paired Identification (24 points total; 18 minutes total)

Choose **two** of the following **three** pairs of items. Define or identify each term in the pair (8 points). Then, briefly discuss the connection between the two terms (4 points). Each answer is worth 12 points total. You should spend about 9 minutes on each question.

(1)   (a) $P^{\text{II}}_{slave} = \sum\limits_{\substack{life\ of \\ slave}} \dfrac{(P_{cotton} \times MPP_{slave} - Maint)_t}{(1 + r)^t}$ and (b) "Rational" economic behavior

(2)   (a) 1890 Sherman Anti-Trust Act and (b) Extent of mergers after 1890

(3)   (a) Occupational discrimination and (b) Pattern of income by nativity, large versus small cities, Michigan, 1890

PART II.   Table and Graph Identification (18 points total; 13 minutes total) Answer all three questions.

(1)   What are the data in the table saying? (2 points) What is an explanation for the pattern shown? (4 points)

Specialization Index

	Agriculture
1870	0.98
1900	1.04
1920	1.08
1987	1.25

Source: Sukkoo Kim, "Economic Integration and Convergence, U.S. Regions, 1840-1987," NBER Working Paper No. 6335, December 1997, Tables 1, 3, 7.

(2)   What are the data in the table saying? (2 points) What is an explanation for the pattern shown? (4 points)

New Urban Housing Starts (thousands)

1921	359	1926	681
1922	574	1927	643

1923	698	1928	594
1924	716	1929	400
1925	752		

Source: *Historical Statistics*, Series N162.

(3)   What are the data in the table saying? (2 points) What is an explanation for the pattern shown? (4 points)

**Representation Ratios for Broad
Occupational Categories, Males only, 1940**

Domestic Service	1880.3
Laborers	396.2
Craftsmen, foremen, etc.	42.8
Professional, semiprofessional	36.7

Source: Sundstrom, William, "Racial Discrimination in Labor Markets," Table 2.

Part III.   *Using Economic Models and Concepts to Explain Historical Events*
                 (36 points total; 27 minutes total) **Answer all three questions.**

(1)   (12 points) Use an economic model to explain why labor scarcity led to the development of a machine tool industry. If appropriate, supplement your explanation with a graph.

(2)   (12 points) Use the concept of externality to explain why the government subsidized railroad construction firms in the 1800s. Why was the subsidy in the form of land grants?

(3)   (12 points) Use the equation GDP = C + I + G + NX to account for the *sources* of decline in the economy, 1929 - 1933. What is **any one** explanation of the *cause* of severe decline in the economy?

PART IV.   *Short Essay Question (22 points total; 17 minutes total)*
Answer **one** of the following **two** questions. Base your answers on lecture, discussion section, **and** the assigned reading. *Complete answers will draw from all three sources.*

(1) This question considers the connections between immigration, changes in the labor force, and education.

a) (8 points) Describe the patterns of immigration, 1880 - 1920: countries of origin of immigrants, declared occupations, and extent of population growth attributable to immigration. Describe changes in the shares of the labor force in agriculture, manufacturing, and services over the same period.

b) (2 points) Why did the share of high school graduates who went on to graduate from college decline between 1900 and 1935?

Claudia Goldin and Larry Katz studied state support for higher education in the early twentieth century. Their econometric results are reprinted at right.

c) (2 points) Interpret the coefficient on the dummy variable for the South.

d) (10 points) Drawing on their article and using the econometric results, explain why and to what extent immigration affected state support for public colleges and universities. Explain why and to what extent changes in the manufacturing labor force affected state support for public colleges and universities.

Table 9. Determinants of State Support for Higher Education, 1929
(standard errors in parentheses)

	Log of (Gov't spending on higher education per capita)
% labor force in mining	2.38 (1.62)
% labor force in agriculture	1.45 (0.79)
% labor force in manufacturing	3.05 (1.47)
% population Catholic	-.628 (0.54)
Log (auto registrations per capita)	1.06 (0.27)
Private college enroll-ment per 1000 residents	-0.258 (0.095)
West (0/1 dummy variable)	0.782 (0.24)
South (0/1 dummy variable)	0.667 (0.23)
East North Central (0/1 dummy variable)	0.386 (0.20)
Constant	-0.115 (1.76)
R^2	0.798
n	48

Source: Goldin & Katz, "Shaping of Higher Education," Table 2.

(2) This question considers agriculture, banking, and bank failures.

a) (5 points) Using appropriate economic concepts, explain why virtually all farms became mechanized once the process of mechanization began. What was the impact of increased mechanization on labor productivity? On land productivity?

b) (4 points) Answer each of the following questions with one sentence each (four sentences total). What is a "national bank" and what is a "state bank"? How did the National Bank Acts of the 1860s eliminate almost all state banks in the late 1860s? Why did the number of state banks begin rising again in the 1870s? By 1913, what was the approximate ratio of the number of state banks in the U.S. to the number of national banks?

c) (1 point) One well-known feature of the Great Depression is the large number of bank failures. When did banks in the U.S. begin failing?

David Wheelock studied bank failures in Kansas. His econometric results are reprinted at right. A wave of agricultural mechanization after 1913 had been financed largely by state bank loans, but agricultural prices declined in the 1920s below their 1913 level leading many farmers to default on their loans.

d) (12 points) Drawing on his article and using the econometric results, explain why and to what extent agricultural distress affected bank failures in Kansas. Explain why and to what extent competition between state and national banks affected bank failures in Kansas. Explain why and to what extent deposit insurance affected bank failures in Kansas.

Determinants of Bank Failure
(standard errors in parentheses)

	All Banks
constant	-0.15 (0.11)
%Δ value per acre of farmland & buildings (ΔVALUE)	-0.35** (0.18)
% Δ total farm acreage (ΔLAND)	-0.12 (0.29)
% of state banks with deposit insurance (RATIO)	0.13** (0.07)
% Δ county's population, 1920-1930 (ΔPOP)	-0.23** (0.13)
# banks per person (BANKPOP)	-0.22 (0.61)
% of total banks that were national banks (NATIONAL)	0.36** (0.18)

Source: Wheelock, "Regulation and Bank Failures," Tables 1 and 2, Equations 1.1, 2.1, 1.2, and 2.2, respectively.