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Source: *Journal of Interdisciplinary History*, Vol. 19, No. 4, (Spring, 1989), pp. 553-583

Published by: The MIT Press

Stable URL: <http://www.jstor.org/stable/203954>

Accessed: 09/07/2008 05:02

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Richard J. Jensen

The Causes and Cures of Unemployment in the Great Depression

The refrain, “unemployed through no fault of their own,” reverberated throughout the 1930s, and echoes down even to present. It shifted the blame away from the victims of hardship, but its repetition over the years to make a political point has dulled historians’ sensibilities to the social and economic history of the era. Among the thousands of studies on the 1930s, there are few on the social history of unemployment or relief.¹ Economists have fitted macroeconomic models to the era, typically using an econometric time-series analysis of five to ten variables aggregated nationally. “No fault” implies that no characteristics or deficiencies of workers affected their unemployment and that no program or individual effort to remedy such deficiencies could help much. As used in political debate regarding the necessity of government intervention in the economy, it assumed that macro-, not micro-explanations were called for, and that political, not personal solutions were needed.

How true was it that all of the unemployed of the 1930s were faultless, that the flaws of capitalism were responsible for their plight, or that the programs of Herbert Hoover and Franklin D.

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The author extends his thanks to the faculty workshops at Indiana University, the University of Illinois, Urbana, the University of Houston, and Georgia Institute of Technology, and to Thomas B. Alexander, W. Dean Burnham, D’Ann Campbell, Stanley Engerman, Richard Fried, Eugene Genovese, Mark Leff, John McClymer, Steven Mintz, Larry Neal, Daniel Nelson, Daniel Scott Smith, Gavin Wright, and several anonymous reviewers.

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1 William H. Matthews, “Relief Can Be Too Cheap,” *Survey*, LXXI (1935), 5. The best discussions remain Richard A. Lester, *Economics of Labor* (New York, 1941), 252–256, 360–403; Philip Eisenberg and Paul F. Lazarsfeld, “The Psychological Effects of Unemployment,” *Psychological Bulletin*, XXXV (1938), 358–390. See also Robert A. Margo, “Interwar Unemployment in the United States: Evidence From the 1940 Census Sample,” in Barry Eichengreen and Timothy J. Hatton (eds.), *Interwar Unemployment in International Perspective* (Boston, 1988); Bernard Sternsher, “Victims of the Great Depression: Self-Blame/Non-Self-Blame, Radicalism, and Pre-1929 Experiences,” *Social Science History*, I (1977), 137–177.

Roosevelt hurt or helped? What caused unemployment in the first place and why did it persist so long? These are basic questions in twentieth-century economic, social, and political history. With new data, new economic models, and a half century of perspective, these questions can be explored.²

No one doubts that unemployment and relief were central to the 1930s. Historians typically link the successes and failures of politicians confronting the unemployment and relief crisis to the political realignment of the New Deal, the emergence of the welfare state, and a half century of liberalism. This article introduces fresh data on the distribution of unemployment showing that an individual's personal characteristics were related to the risk of unemployment. New theoretical models from economics, "efficiency wages" and the "natural rate of unemployment," are used to explain how new personnel policies of American business caused the characteristics to be correlated, caused unemployment to be so widespread and so prolonged, and required new solutions that were not forthcoming until World War II.

Following Keynes, we can distinguish three types of unemployment. Cyclical or deficient-demand unemployment was a macroeconomic phenomenon—there was not enough fiscal or monetary demand in the economy for it to operate at full employment levels. Explanations of the 1930s have focused almost exclusively on cyclical unemployment, the kind that was "no fault" of the worker. The basic problem with most macro models, whether neo-classical, monetary, or Keynesian, is that they assume a homogeneous labor force. Workers were supposedly alike and interchangeable, with equal chances of becoming unemployed or being rehired. That assumption makes model building easier, but distorts history so badly that the high and sustained unemployment rates of the 1930s remain a mystery to economists. But, if the workers differed in their productivity, and employers could differentiate among them, then an identifiable subgroup would

2 Perspective is possible because the New Deal party system is dead, and the main positions taken by both the New Dealers and their opponents are irrelevant to the 1990s. For example, Senator Paul Simon's call for a new work relief program attracted zero support in the 1988 campaign. In 1982 the Quayle-Kennedy Job Partnership Training Act replaced the Comprehensive Employment and Training Act (CETA), a neo-WPA. Sheldon H. Danziger and Daniel H. Weinberg (eds.), *Fighting Poverty: What Works and What Doesn't* (Cambridge, Mass., 1986).

suffer most of the unemployment because of its own characteristics—its own “faults.”³

Frictional unemployment was normal, even in boom times. It consisted of the time spent searching for a new or better job. When the depression hit, workers voluntarily quit their jobs only one third as often as in 1929, and youth stayed in school longer, so the frictional rate fell sharply. The prevailing view among economists today is that frictional unemployment, although often painful, was on the whole desirable because it made individual income, company profits, and the gross national product (GNP) higher by allowing employers’ needs and workers’ talents to be better matched. Frictional unemployment is like divorce: the short-term effects are unpleasant, but it makes for better long-term relationships.⁴

The third kind of unemployment was structural—a long-lasting mismatch between job vacancies and job seekers. Historically, geography has been a cause, with the unemployed slow to uproot themselves and move to new places. For example, an industry could decline suddenly (like coal in the 1920s, or steel in the 1980s) with resulting high unemployment before workers managed to adjust. Discrimination according to race, sex, or age can also be considered structural.

The most important variety of structural unemployment in the 1930s was “hard core.” Although millions of people were still being hired, no one wanted to hire the hard-core unemployed. They would be totally out of work, save for a short part-time

3 James J. Hughes, *The Economics of Unemployment* (New York, 1984), 26–52; Kenneth G. Knight, *Unemployment: An Economic Analysis* (Totowa, N.J., 1987); Robert J. Gordon, *Macroeconomics* (New York, 1987), 315–332; Lawrence H. Summers, *Understanding Unemployment* (Cambridge, Mass., 1988). Structural models of unemployment were being explored at the time; Mark Casson, *Economics of Unemployment: An Historical Perspective* (Cambridge, Mass., 1984). On the mystery, see Karl Brunner (ed.), *The Great Depression Revisited*, (Boston, 1981), 212; Robert E. Lucas, Jr., *Studies in Business-Cycle Theory* (Cambridge, Mass., 1981), 284; Alan S. Blinder, “The Challenge of High Unemployment,” *American Economic Review*, LXXVIII (1988), 1–15.

4 Michael J. Piore, “Historical Perspectives and the Interpretation of Unemployment,” *Journal of Economic Literature*, XXV (1987), 1834; Rudiger Dornbusch and Stanley Fischer, *Macroeconomics* (New York, 1987; 4th ed.), 561. Alexander Keyssar, *Out of Work: The First Century of Unemployment in Massachusetts* (New York, 1986), deals chiefly with frictional unemployment c. 1900. Unemployment insurance did not help the hard-core unemployed, because it required recent work experience, and lasted only three or four months. Sumner H. Slichter, “The Impact of Social Security Legislation upon Mobility and Enterprise,” *American Economic Review*, XXX (1940), 44–60.

job or two, for years at a time. Employers distrusted their job qualifications; they would not hire them for any reason at any wage. Minimum wage requirements (in effect as National Recovery Administration [NRA] codes from 1933 to 1935, and permanently from 1938 to the present) made it even more difficult to hire them. Some entry into the hard core resulted when people moved from a “normal” status to one where severe discrimination existed—for example when blacks migrated from the rural South to urban areas, and when middle-aged workers became, at age forty-five or fifty, “too old.”⁵

A striking feature of the 1930s was that most unemployment was of the hard-core variety (see Table 1). Hard-core unemployment was rare before 1931; not since 1942 has more than 1 percent of the labor force been unemployed longer than one year or 2 percent been unemployed over six months. In the Great Depression, prolonged cyclical unemployment turned into irreversible structural unemployment for 10 percent of the labor force. Five million previously “normal” workers suddenly and utterly unexpectedly fell into the hard core trap and could not escape. Why did this happen and to whom? How did the government help or hurt? How did the hard core finally shrink from a major to a minor problem? These are my central themes.

Table 1 gives estimates of how much unemployment existed in each of the three categories. Structural unemployment affected about one tenth of the labor force from 1933 to 1940. Cyclical unemployment was of primary importance from 1931 through 1934, when it began to fade away. The economy moved upward rapidly after March 1933—faster than ever before or since—and cyclical unemployment plunged. But structural unemployment then revealed itself: the tide was back in, but many boats were still snagged. The New Deal restored prosperity at a much higher permanent (or “natural”) level of unemployment. Economists and historians have missed this paradox because they have long as-

5 Pilgrim Trust, *Men without Work* (Cambridge, 1938), described the hard-core situation in Britain. Wladimir S. Woytinsky, *Three Aspects of Labor Dynamics* (Washington, D.C., 1942), was the first in America to estimate hard-core unemployment and to link it to changing hiring practices. Gunnar Myrdal, *An American Dilemma* (New York, 1944), 197, 295–296, 390, 395; William Graebner, “Help Wanted: Age Discrimination in Buffalo, New York, 1895–1935,” *New York History*, LXV (1984), 349–365; Lester, *Economics of Labor*, 463–472.

Table 1 Unemployment of Labor Force, by Type, 1929–1941

	NATURAL			
	TOTAL	FRICTIONAL	STRUCTURAL & HARD CORE	CYCLICAL
1929	5.5%	4.5%	1.0%	0.0%
1930	8.9%	4.0%	2.0%	2.9%
1931	16.3%	3.0%	4.0%	9.3%
1932	24.1%	2.0%	8.0%	14.1%
1933	25.2%	3.5%	9.0%	12.7%
1934	22.0%	4.0%	10.0%	8.0%
1935	20.3%	4.6%	10.0%	5.7%
1936	17.0%	4.6%	9.5%	2.9%
1937	14.3%	4.7%	9.5%	0.1%
1938	19.1%	4.7%	10.0%	4.4%
1939	17.2%	5.0%	9.7%	2.5%
1940	14.6%	5.0%	9.0%	0.6%
1941	9.9%	5.0%	4.9%	0.0%

SOURCE George Smiley, "Recent Unemployment Estimates for the 1930s and 1930s," *Journal of Economic History*, XLIII (1983), 487–493; author's computer simulations.

sumed that all of the unemployment above the frictional level was cyclical; they never looked for signs of structural unemployment.⁶

The new hard-core phenomenon was caused by the interaction of two unique events, the depression and the new personnel policies of American businesses. We need to explore the latter. The layman's intuitive model of labor markets holds that during depressions firms can decrease their labor costs, and make more profit, by lowering wages (if there is no strong union opposition).

6 The structurally unemployed are measured as workers unemployed more than six months (estimated from surveys), minus the number that could be expected to be unemployed that long in a homogeneous labor force experiencing hiring and separation rates identical to those experienced in manufacturing. See notes 17 and 18 below for data sources. The estimate for 1935 closely matches the number of employable workers on relief, which was the basis for Roosevelt's request to Congress for WPA funds. WPA, *Changing Aspects of Urban Relief* (Washington, D.C., 1939), 3, 44; WPA, *Urban Workers on Relief* (Washington, D.C., 1936); Donald Howard, *The WPA and Federal Relief Policy* (New York, 1943), 562. Lucas, "Unemployment in the Great Depression: Is There a Full Explanation?" *Journal of Political Economy*, LXXX (1972), 186–191, and items in note 19 for example. At the time, the Keynesian theory of permanent stagnation seemed to explain the paradox; Alvin H. Hansen, "Economic Progress and Declining Population Growth," *American Economic Review*, XXIX (1939), 1–15.

In hard times, there were many applicants eager for jobs, and businesses would hire them unless their current employees agreed to accept the lower wage rates. A “reserve army of the unemployed,” standing in long queues outside the hiring gate, allowed firms to keep wages low.⁷ According to this view, higher unemployment caused lower wages. One problem with this model is that its predictions for the 1930s are wrong. Real hourly wages did not fall during the depression—they held steady or even rose. The unemployed and low-wage workers did not bid away jobs. We should not be misled by stories about unemployed who would work at any wage, no matter how low. There were millions of such people but (apart from “odd jobs” that rarely were reported), they were not hired.

Table 2 shows the basic patterns of nominal (cash) wages in column 2, real wage rates (adjusted for the cost of living) in manufacturing in column 3, and the productivity of the factory work force in columns 4 and 5 for 1927 to 1940. Cash wages fell less than the cost of living, so the real wage rate rose steadily (1932 excepted) throughout the depression. Indeed, the 45 percent surge from 1930 to 1940 was the greatest on record. Table 2 focuses on manufacturing, but the phenomenon was broad. In each sector, let 100 percent equal the real annual pay of full-time employees from 1926 to 1929. Consider only the paid work force—no owners or self-employed. In the early depression, 1931 through 1935, average annual real pay for an employee with no unemployment rose in utilities (to 125 percent), government (114 percent), services (excluding domestics) (112 percent), transportation (112 percent), and trade (108 percent). Pay held steady in finance (103 percent) and manufacturing (99 percent), and fell in mining (89 percent), farm labor (86 percent), domestic service (85 percent), and construction (74 percent). The overall average was 103 percent. Actual incomes were much lower—at 76 percent—because of unemployment, not wage cuts. Unions, then at their weakest, had little to do with these wage gains.⁸

7 Many workers and unionists entertained this theory; see W. Lloyd Warner and Josiah O. Low, *The Social System of the Modern Factory: The Strike, A Social Analysis* (New Haven, 1947), 21–28.

8 M. Ada Beney, *Wages, Hours, and Employment in the United States, 1914–1936* (New York, 1936); Bureau of the Census, *Historical Statistics of the United States* (Washington, D.C., 1975), 164–167. Note that efficiency wages were seldom used in mining, construc-

Table 2 Nominal and Real Hourly Wages, Productivity in Manufacturing, 1927-1940

1926-1929 = 100					
	(1)	(2)	(3)	(4)	(5)
	INDEX COST OF LIVING	ACTUAL WAGE PER HOUR	INDEX REAL WAGES MFG.	REAL LABOR COST	INDEX MFG OUTPUT PER HOUR WORKED
1926	98.6	54.8	100	93	95
1927	101.2	55.2	98	100	97
1928	100.1	56.0	100	102	102
1929	100.0	56.6	102	105	106
1930	97.5	55.2	102	110	107
1931	88.8	51.7	105	117	110
1932	79.7	45.8	103	111	103
1933	75.5	45.5	108	109	112
1934	78.2	54.1	124	117	117
1935	80.1	55.9	125	122	125
1936	80.9	56.4	125	120	126
1937	83.9	63.4	136	126	124
1938	82.3	63.9	139	133	122
1939	81.2	64.4	142	135	134
1940	81.7	67.0	147	137	140

(1) = consumer cost of living; (2) = cents per hour, manufacturing

(3) = (2)/(1); (4) = (2)/wholesale prices of industrial products

(5) Bureau of Labor Statistics index.

SOURCES Bureau of Labor Statistics, *Handbook of Labor Statistics: 1941* (Washington, D.C., 1942), II, 10, 12, 15; Bureau of the Census, *Historical Statistics of the United States* (Washington, D.C., 1975), ser. D685, E41.

In the 1930s, a plausible explanation of the high wages held that after the depression of 1920 to 1921 business invested in a “high-wage” or “Fordism” theory of prosperity. The idea, popularized by Henry Ford and strongly endorsed by Hoover and his business allies, was that prosperity depended on high levels of consumption, which in turn depended on high incomes for work-

tion, domestic service, or farm labor (James N. Baron, P. Devereaux Jennings, and Frank R. Dobbin, “Mission Control? The Development of Personnel Systems in U.S. Industry,” *American Sociological Review*, LIII [1988], 502-504). For analysis of the cost of labor in terms of wages adjusted for the wholesale prices firms received, see Ben S. Bernanke and James L. Powell, “The Cyclical Behavior of Industrial Labor Markets: A Comparison of the Prewar and Postwar Eras,” in Gordon (ed.), *The American Business Cycle: Continuity and Change* (Chicago, 1986), 615.

ers. A lack of purchasing power would lead to underconsumption, which spelled depression. Most economists rejected this line of thought, but it proved unusually attractive to businessmen and politicians (and historians).⁹ From the business perspective, labor costs remained high. Wages deflated by the wholesale cost index climbed steadily (Table 2, column 4), except under the extreme conditions of 1932 and 1933—and, even then, the index was higher than ever before 1930. The puzzle is why businessmen, faced with the worst crisis ever, clung to a new, untested policy that was at once counterintuitive, attacked by economists, and unsuccessful in its macroeconomic prediction that prosperity was just around the corner. The explanation is that they were practicing not macroeconomics but microeconomics, with a personnel policy that gave them good reasons for keeping wages high. Only in the mid 1980s did economists come to appreciate what the businessmen were doing: they were following an “efficiency wage” policy, not basing their decisions on a high-wage theory of prosperity.

By the 1920s it was no longer true that firms could increase their profits by cutting wages. Paradoxically, a better way to increase profits was to increase wages. The labor cost of a firm increased with the wage rate, but it decreased with the rising productivity of the workers. A wage hike that improved productivity more than the cost of the extra wages increased profits. High pay attracted better workers who produced much more, so fewer were needed. Conversely, if wage cuts drove away the best workers, productivity and profits would fall. For employers, the optimal wage—optimal in terms of profitability for the firm—was the efficiency wage. It did not clear the labor market: millions of applicants were eager to take jobs at the high rates, but were turned away at the hiring gate in the 1930s.¹⁰

9 National Industrial Conference Board, *Wages in the United States, 1914–1926* (New York, 1926), 3–4; William J. Barber, *From New Era to New Deal: Herbert Hoover, the Economists, and American Economic Policy, 1921–1933* (New York, 1985), 27–30, 47–48, 84–88, 90–91. For a critique of the high-wage theory, see Don D. Lescossier, *History of Labor in the United States, 1896–1932* (New York, 1935), III, 88–96. Unions usually approved (W. Jett Lauck, *The New Industrial Revolution and Wages* [New York, 1929]). Robert S. McElvaine, *The Great Depression* (New York, 1984), is representative of recent historians. Daniel J. B. Mitchell, “Inflation, Unemployment, and the Wagner Act,” *Stanford Law Review*, XXXVIII (1986) 1065–1096.

10 George A. Akerlof and Janet L. Yellen (eds.), *Efficiency Wage Models of the Labor*

With the end of large-scale unskilled immigration in 1914, American industry shifted from reliance on a vast supply of unskilled workers performing heavy or repetitive tasks, to more skilled workers using more machinery in more complex ways, under the eyes of engineers watching for signs of waste or possibilities for improvements. Industry was now run by the designs of modern engineers, not the craft of traditional workers. Business managers had to be ready to retool their operations with new products, new equipment, and new methods whenever demand shifted. Therefore the modern worker had to be trained in shop techniques, and had to follow the new discipline. High turnover rates, which had been universal a few years before, now meant unacceptably high and wasteful training costs. A revolution in labor management took place during the 1920s, spurred by the realization that the old regime was inefficient and less profitable.¹¹

The new policies were designed to identify and keep the more efficient workers, and to encourage other workers to emulate them. Various experiments were undertaken in “welfare capitalism” (that is, non-wage benefits, like pensions, vacations, and company unions). More important were the innovations in hiring policies such as moving authority from foremen to central offices, using application forms, checking with previous employers, and giving tests. As sales and profits plummeted during the depression, firms hastened to install more efficient personnel practices. The proportion of firms with personnel departments jumped from 34 percent in 1927 to 47 percent in 1937, and almost no firms hired without an interview or application form. Five out

Market (New York, 1986); Lawrence F. Katz, “Efficiency Wage Theories,” *NBER Macroeconomics Annual 1986* (Cambridge, Mass., 1986), 235–289, summarize the literature. My use follows Andrew Weiss, “Job Queues and Layoffs in Labor Markets with Flexible Wages,” *Journal of Political Economy*, LXXXVIII (1980), 526–538; Jeremy I. Bulow and Summers, “A Theory of Dual Labor Markets with Application to Industrial Policy, Discrimination, and Keynesian Unemployment,” *Journal of Labor Economics*, IV (1986), 376–414. The efficiency wage concept was clearly recognized at the time. See Selig Perlman, *A Theory of the Labor Movement* (New York, 1928), 212–214; Clark Dickinson, *Compensating Industrial Effort: A Scientific Study of Work and Wages* (New York, 1937), 56–57.

¹¹ Lescohier, *History of Labor*, III, 293–396; Slichter, “The Current Labor Policies of American Industries,” *Quarterly Journal of Economics*, XLIII (1929), 393–435; Walter Dill Scott et al., *Personnel Management* (New York, 1941; 3rd ed.), 519–540; Sanford M. Jacoby, *Employing Bureaucracy: Managers, Unions, and the Transformation of Work in American Industry, 1900–1945* (New York, 1985), 133–233.

of six firms surveyed the local labor market regularly to see that their wages were competitive for good workers.¹² This revolution in management caused real wages to grow, productivity to grow, and, after the depression had bottomed out, left a residue of hard-core unemployed who were no longer being hired.

Before 1920, most job applicants looked alike to management. In the new regime, it paid to sort them out. The key ingredient in increasing productivity, as Ford had demonstrated to a stunned world in 1914 with his \$5-wage, was to offer high pay to attract and retain the best workers. A more subtle variation on efficiency wages, with the effect of keeping the more productive workers, was to tie wage rates and recalls after layoffs to seniority. Workers realized that the longer they stayed with a firm, the more their wages, prerequisites and job security would increase.¹³

A second dimension of efficiency wages involved shirking and stints. Some workers (some of the time) have an inner drive to work hard; most workers (most of the time) are willing to coast a little. Furthermore, shop-floor culture in the United States (as opposed to, say, Japan) encouraged peer group pressure against anyone who tried to work too hard.¹⁴ Close supervision to monitor output was expensive and was, in any case, keenly resented by good workers. It was better to select workers who were less inclined to shirk by offering high wages and to use a trial work period to screen out any shirkers who slipped through. Spot checks to identify and fire shirkers made loafing expensive for the workers; the higher the wage, the greater the possible loss.

12 Scott et al., *Personnel Management* (New York, 1954; 5th ed.), 619, 631; Baron, Dobbin, and Jennings, "War and Peace: The Evolution of Modern Personnel Administration in U.S. Industry," *American Journal of Sociology*, XCII (1986), 354-357.

13 Donald O. Parsons, "The Employment Relationship: Job Attachment, Work Effort, and the Nature of Contracts," in Orley Ashenfelter and Richard Layard (eds.), *Handbook of Labor Economics* (New York, 1986), II, 789-848; Joseph E. Stiglitz, "Theories of Wage Rigidity," in James L. Butkiewicz et al. (eds.), *Keynes' Economic Legacy* (New York, 1986), 153-221. Daniel M. G. Raff and Summers, "Did Henry Ford Pay Efficiency Wages?" *Journal of Labor Economics*, V (1987), S57-S86.

14 Herbert Gutman, "Work, Culture, and Society in Industrializing America," *American Historical Review*, LXXVIII (1973), 531-588; David Montgomery, *The Fall of the House of Labor: The Workplace, the State, and American Labor Activism, 1865-1925* (New York, 1987), 17-18, 459; Stanley B. Mathewson, *Restriction of Output among Unorganized Workers* (New York, 1931); Slichter, *Union Policies and Industrial Management* (Washington, D.C., 1941), 164-227.

Closely related to shirking was the problem of the stint. A group of workers would develop a standard rate of performance—a stint—and would harass shop mates who surpassed it. When management tried to increase the stint, workers denounced it as a “speedup” and threatened to strike. But the stint, and the perception of speedup, were relative and psychological. By careful selection, it was possible to find those workers with higher stint levels and to create groups that naturally produced more—working faster and with less waste—than groups held back by workers with lower stint levels. Every employer wanted high-stint workers, and so had to pay more to hire and retain them. Efficiency wages and careful hiring policies allowed firms to select workers who demonstrated higher stint rates—who worked harder. Firms which gained a reputation for high wages and hard work, soon attracted and kept workers who felt comfortable with such a regime. Workers without the characteristics desired by management were not hired (except by mistake—and then quickly fired).¹⁵ The rising real wages are explained by efficiency wage models only if productivity increased; otherwise, management would be making a huge mistake in paying more wages but getting no more output. Table 2 shows that productivity (column 5) rose in parallel with the cost of labor (column 4), thus vindicating the new managerial system.

The “common sense” notion that people were unemployed because there were not enough jobs was only partially true. There were indeed fewer jobs than potential workers. However, the work force of the 1930s was constantly churning, with people moving between jobs all of the time. When dealing with a decade of massive unemployment, it is easy to forget how much hiring occurred. From 1931 through 1935, with an average roster in manufacturing of 8.0 million workers, the voluntary quit rate was 9 workers per 1,000 per month (69,000 every month), the layoff/discharge rate was 31 (249,000 every month), and the hiring rate

15 Akerlof, “Labor Contracts as Partial Gift Exchange,” *Quarterly Journal of Economics*, XCIII (1982), 543–569; Charles F. Sabel, *Work and Politics: The Division of Labor in Industry* (New York, 1982), 99–101. Most radical historians celebrate shirking as a mode of resistance to capitalism (Richard Edwards, *Contested Terrain: The Transformation of the Workplace in the Twentieth Century* [New York, 1979]). For a much more subtle Marxist approach, congruent with efficiency wage models, see Samuel Bowles, “The Production Process in a Competitive Economy: Walrasian, Neo-Hobbesian, and Marxian Models,” *American Economic Review*, LXXV (1985), 16–36.

was 41 (332,000 every month). Even at the depth of the depression, factories were hiring a million workers every three to four months. From 1933 through 1939, the hiring rate was practically constant at 400,000 per month. Firms outside manufacturing were also active.¹⁶ In a buyers' market, several applicants were reviewed for every vacancy, so the number of hiring decisions must have been vast. If applicants had obvious faults, they would not find new jobs easily. Whether the queue was long or short, they could not make their way to its head.

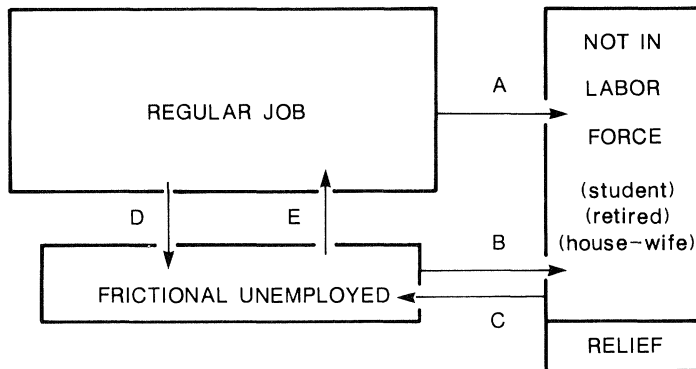
The story of the depression was one of excruciatingly long and frustrating job searches by some of the workers—the hard core. This phenomenon was new, for state, city, and national unemployment data between 1885 and 1930 indicate that only 10 to 20 percent of the unemployed, and thus only 1 or 2 percent of the labor force, had been unemployed for longer than six months. In 1930, 16 percent of the unemployed, and only 1 percent of the labor force, had been out six or more months. Before the 1930s, “unemployment was a quite democratic and egalitarian affliction among the working people.” As male unemployment in Buffalo grew, so too did the proportion of the unemployed who had been out of work one year or more: 9 percent (1929), 21 percent (1930), 43 percent (1931), 60 percent (1932), and 68 percent (1933). In terms of the entire male labor force, the jump was astonishing: from 0.5 percent in 1929 to 20 percent in 1932. In Philadelphia, in early 1929, the unemployment rate was 10 percent. However, only 6 percent of the unemployed had been jobless a year or more. By 1931, 21 percent of the unemployed men had been out a year or more; the proportion climbed steadily to 69 percent in 1935, and was “only” 48 percent in 1938. When the Works Progress Administration (WPA) began in 1935, one third of Philadelphia's unemployed were extreme hard core—they had held no steady non-relief job for three or more years.¹⁷

16 Martin Neil Bailly, “The Labor Market in the 1930s,” in James Tobin (ed.), *Macroeconomics, Prices, and Quantities* (Washington, D.C., 1983), 21–61; Robert E. Hall, “The Importance of Lifetime Jobs in the U.S. Economy,” *American Economic Review*, LXXII (1982), 716–724. Bureau of Labor Statistics, *Handbook of Labor Statistics: 1941* (Washington, D.C., 1942), 529–534; Woytinsky, *Three Aspects*, 1–60, 230–231; Bureau of the Census, *Historical Statistics*, 181–182. National turnover data was collected only for manufacturing, but in Wisconsin, where all jobs were sampled, manufacturing turnover mirrored overall turnover. Bureau of Labor Statistics, *Handbook of Labor Statistics, 1924–1926* (Washington, D.C., 1927), 586–587.

17 Bureau of the Census, *Fifteenth Census of the United States, 1930: Unemployment* (Wash-

Figures 1 and 2 contrast the normal and the depression flow patterns. Normally, the flow into a job search (D) was counter-balanced by rehires (E). The stay in unemployment was short—a month or two on average. In the Great Depression, as Figure 2 illustrates, many of the unemployed plunged directly into the hard core (flow F). If the labor force had been homogeneous from 1929 to 1933, simulation models indicate that in 1933 about 12 percent of the labor force would have been unemployed over six months, with a decrease to 5 percent by 1934. The actual percentage was much higher: 20 percent in 1933 and 17 percent in 1934.¹⁸ The rehires (flow E) were different from those who remained in the hard core or were forced onto relief (flow H). Simulations that match the observed data indicate that the hard core were hired only one tenth as often as other job-seekers. WPA

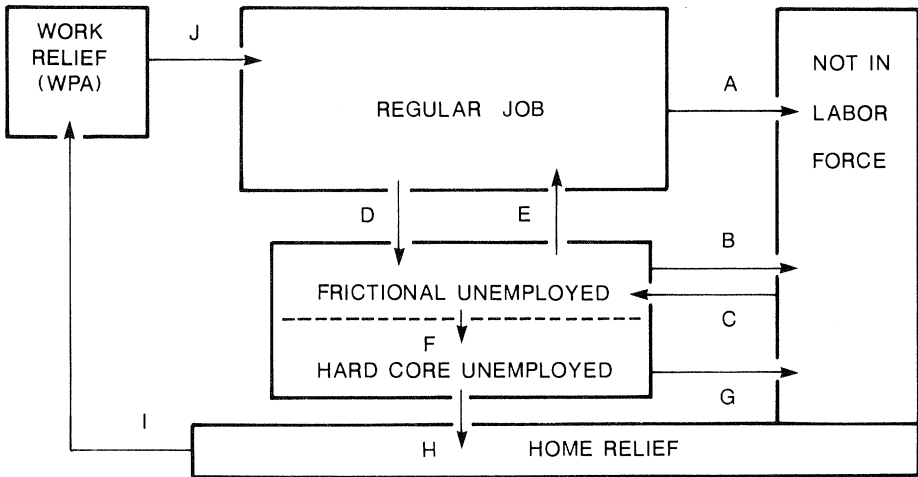
Fig. 1 Normal Flows: Short Stay in Unemployment



ington, D.C., 1932), II, 317. Quotation from Keyssar, "Unemployment Before and After the Great Depression," *Social Research*, LIV (1987), 210. See August C. Bolino, "The Duration of Unemployment: Some Tentative Historical Comparisons," *Quarterly Review of Economics and Business*, VI (1966), 31-49. Woytinsky, *Three Aspects*, 86-103; *Monthly Labor Review*, XXXVII (1934), 526; Gladys L. Palmer, *Recent Trends in Employment and Unemployment in Philadelphia* (Philadelphia, 1937); Margaret H. Hogg, *The Incidence of Work Shortage* (New York, 1932), 79. The sources are spotty because both Hoover and Roosevelt believed the less unemployment data the better. Margo J. Anderson, *The American Census: A Social History* (New Haven, 1988), 177.

18 Harry J. Winslow, "Duration of Unemployment by States, 1930-1934," Social Security Board Bureau of Research and Statistics, Memorandum #14 (Washington, D.C., 1937). Cf. Nicholas F. R. Crafts, "Long-Term Unemployment in Britain in the 1930s," *Economic History Review*, XL (1987), 418-432.

Fig. 2 Great Depression: New Flows (F into Hard Core, H into Home Relief, and I into Work Relief)



studies of actual cases showed the same order of magnitude—that is, about 1 percent of the hard core found jobs in a given month (flow J). Half of those quickly lost their jobs and were soon back on WPA (which guaranteed that they would be allowed to return).

Before 1930, long-term unemployment was associated with specific personal problems, such as illness. The phenomenon of extensive hard-core unemployment among people who had recently held jobs was new in the Great Depression. It is what made the downturn so unusual in long-term perspective, caused so much surprise, anguish, and hardship, and occasioned widespread distrust of the self-correcting capabilities of capitalism. This “hysteresis,” or permanent pulling out of shape, had never happened before 1931; it has not reappeared in America.¹⁹

A careful Minnesota study in 1932 examined the extent to which people were unable to obtain new jobs primarily because of personal factors, as opposed to cyclical economic conditions.

19 In 1982, when unemployment approached 1940 levels, only 1.6% of the labor force was unemployed more than six months. Hysteresis did emerge in Europe after 1982. Olivier Jean Blanchard and Summers, “Hysteresis and the European Unemployment Problem,” *NBER Macroeconomics Annual 1986* (Cambridge, Mass., 1986), 69–71; Gordon, “Back to the Future: European Unemployment Today Viewed from America in 1939,” *Brookings Papers on Economic Activity*, No. 1 (1988), 271–312.

Case histories, interviews, and test data were evaluated, and the people were divided into those who lost their most recent jobs before or after 1 January 1931. The troubles of 49 percent of the early unemployed, compared with only 28 percent of the late unemployed, were attributed to personal factors, especially lack of ability and poor health.²⁰ Thus, in the downswing, some efficiency-wage firing was occurring. Personnel officers, however, dealt mainly with hiring and rehiring, so it was in the upswing after 1933 that the difference between cyclical and structural unemployment became dramatic.

Efficiency-wage models help to explain key elements of the labor market during the depression. When a firm was hiring, it would look at the applicants' wage histories. Men who had earned high wages elsewhere were assumed to have passed the efficiency test, and were more likely to be hired. Those who had earned low wages previously were, by contrast, considered a greater risk, even if (indeed, especially if) they were willing to work for a low wage. Support of this model comes from a study of the reemployment of workers who had lost their jobs when several factories in Massachusetts closed in 1931. Two years later, only 40 percent had found regular permanent jobs, but this figure included 54 percent of the workers formerly in the top one third by pay, 41 percent in the middle, and only 27 percent in the bottom third. With increased mechanization, demand for unskilled labor fell precipitously. Even unskilled applicants with good employment records were not hired, for they had not demonstrated an ability to learn on the job. Furthermore, they risked being "bumped" by skilled or semiskilled workers who were willing to perform unskilled labor.²¹

The unskilled had by far the highest unemployment rates. Table 3 shows unemployment by occupation and industry in

20 Of the people with notable individual faults, 62% lost their jobs early, compared to only 40% of those without distinctive faults. John G. Darley and Donald G. Paterson, "Employed and Unemployed Workers: Differential Factors in Employment Status," *Bulletins of the Employment Stabilization Research Institute, University of Minnesota*, III (1934), 12.

21 Katherine Dupre Lumkin, *Shutdowns in the Connecticut Valley: A Study of Worker Displacement in the Small Industrial Community* (Northampton, 1934), 249. On bumping, see Hogg, *Incidence*, 31–34, 71. The best detail on hiring and layoff practices during the early depression is Solomon Barkin, "The Older Worker in Industry," in *Report of the Joint Legislative Committee on Unemployment* (Albany, 1933).

Table 3 Unemployment by Industry and Occupation (Michigan Men, January 1935)

INDUSTRY	% UNEMPLOYED BY OCCUPATION			
	CLERICAL	SKILLED	SEMISKILLED	UNSKILLED
Construction		47.1%		58.0%
Automobiles	9.3%	10.2%	15.4%	18.2%
Other Mfg.	8.3%	13.4%	14.8%	19.5%
Transport & Communications	9.0%	15.7%	22.9%	47.5%
Trade	11.9%		16.9%	22.4%
Public Service	9.0%	6.2%		25.9%
Professional Service	12.9%			
Personal Service			11.1%	18.4%
Forestry				33.0%
Mining		25.4%		40.7%
Farm Labor				35.1%
ALL	10.3%	17.0%	16.1%	29.4%

NOTE Blank = not reported.

SOURCE State Emergency Welfare Relief Commission, *Michigan Census of Population and Unemployment. IV. Socio-Economic Classification of Workers in Selected Industries* (Lansing, 1937), 4

Michigan in January 1935. Different industries were hurt at different rates, but, inside each industry, the success of the more skilled workers in avoiding unemployment is clear. Unemployment rates by occupation and education in 1935 are shown for Michigan (Table 4), and for the entire urban United States in Table 5. Human capital was a personal asset that sharply reduced the risk of unemployment. In part, more schooling allowed people into white collar jobs that had lower unemployment rates. But, after controlling for occupation, education still made a large difference, since it indicated native intelligence, stock of knowledge, and skill at learning. The last talent in particular would be rewarded by employers using an efficiency-wage approach.

Efficiency models strongly suggest that firms would retain workers with better performance records. The main criteria used in selecting whom to lay off, according to statements of personnel officers and other executives, were competence (71 percent of firms), length of service (72 percent), and family situation (53 percent). Indeed in practice in New York factories, layoff rates declined sharply with seniority. In railroads, the annual layoff rate

Table 4 Unemployment by Education, Occupation and Sex
(Michigan 1935)

YEARS OF SCHOOL	PERCENT UNEMPLOYED ^a				
	ALL ^b	MEN			WOMEN
		WHITE COLLAR	BLUE COLLAR	FARM	ALL
0-4	29.4%	14.7%	29.2%	11.5%	20.7%
5-7	25.6%	13.8%	25.5%	13.6%	19.1%
Low Education	27.0%	14.3%	26.9%	12.8%	19.6%
8	19.3%	10.8%	19.1%	11.9%	14.2%
9-11	19.0%	11.4%	19.5%	15.3%	15.6%
12	13.7%	8.4%	15.7%	14.1%	10.5%
13-15	11.1%	8.1%	13.3%	8.8%	8.3%
16+	5.9%	4.0%	11.1%	7.6%	4.4%
High Education	16.8%	8.8%	18.4%	12.7%	11.9%
ALL	19.6%	9.5%	20.9%	12.7%	13.0%

a unemployment includes work relief, CCC.

b includes school leavers without occupation.

SOURCE State Emergency Relief Commission, *Michigan Census of Population and Unemployment. IX. Education of Gainful Workers* (Lansing, 1937), 2.

between 1929 and 1933 was 43 percent for all employees with less than five years seniority. The rate declined steadily with seniority, so that only 15 percent of railroad workers with fifteen to nineteen years of service were laid off.²² What effect did this practice have on unemployment by age? Young people, without seniority or other credentials, fared poorly in the job search, especially when firms reduced expenses by sharply curtailing on-the-job training. Older employees, having, on average, more seniority and more experience with specific equipment, were fired and laid off less

22 If competence is indicated by length of training, then the annual separation rates (layoff + quit + discharge) in New York in 1930 showed a strong competence effect: high competence (18+ months of training), 29 layoffs per 100 workers; medium (4-18 months), 34/100; low, 41/100; zero training, 53/100. Barkin, "Older Worker," 166. The annual rate for workers with under 3 months service was 174 per 100; 3-5 months, 76; 6-11 months, 46; 1-2 years, 26; 3-4 years, 15; 5-6 years, 12; 7-14 years, 10; 15 years, 8. *Ibid.* 154, 157. A 1932 national survey of factories showed 52% emphasized efficiency in making layoff selections, 18% seniority, and 21% family responsibility. "Hiring and Separation Methods in American Factories," *Monthly Labor Review*, XXXV (1932), 1007-1009. Federal Coordinator of Transportation, *Unemployment Compensation for Transportation Employees* (Washington, D.C., 1936), 41.

Table 5 Unemployment of all Urban Men, Ages 16–69 (1935–1936)
MCA by Occupation and Schooling, Controlling Age

SCHOOLING	ALL MEN		UNSKILLED ONLY	
	OBSERVED	NET ^a	OBSERVED	NET OF AGE
0–2 years	35.9%	36.5%	52.8%	53.5%
3–6	28.9%	29.6%	43.4%	44.7%
Low Education	30.0%	30.7%	45.4%	46.6%
7–8	22.2%	22.6%	37.4%	37.8%
high school	17.0%	16.4%	32.9%	30.1%
college	11.9%	12.2%	19.7%	19.5%
High Education	18.3%	18.2%	35.3%	34.5%
All	20.2%	20.2%	39.5%	39.5%
eta, beta	0.67	0.49	0.66	0.78
OCCUPATION	OBSERVED	NET ^b		
professional	10.5%	16.8%		
manager/proprietor	6.9%	9.2%		
clerical	13.2%	15.7%		
WHITE COLLAR	10.8%	13.9%		
skilled	25.3%	25.0%		
semiskilled	20.5%	18.7%		
service	20.5%	18.1%		
unskilled	39.5%	34.7%		
BLUE COLLAR	26.0%	24.1%		
eta, beta	0.81	0.62		

a controls for occupation, age, age²

b controls for schooling, age, age²

SOURCE U.S. Public Health Service, National Health Survey 1935/36, in Social Security Board, *Statistics of Family Composition in Selected Areas of the United States, 1934–35* (Washington, D.C., 1942), II, 595–607.

often, and recalled to old jobs more often. But it was clear by the late 1920s and early 1930s that most firms were reluctant to hire new men over the age of forty-five. Various reasons were given—increased pension costs, difficulty of training them to new shop styles, and higher accident rates—but probably a strong (and new) prejudice was at work. In any case, men over fifty who had lost their jobs had a hard time finding new ones. A U-shaped distribution had emerged, giving grounds for governmental efforts to remove the unemployable young and old from the labor supply.

Because of the growth of education, older workers had both more seniority and less schooling. To disentangle this interaction, we use multiple classification analysis (MCA) to reveal the separate

contributions of age, education and occupation on unemployment rates for all urban men in the winter of 1935 to 1936. Table 5 shows that schooling was directly tied to employment. Of men who had less than seven years of school, 30 percent were unemployed, compared with 18 percent of those who had graduated from elementary school. We can highlight the effect of education and age by looking at the data on unskilled men in Table 5. Given that “unskilled” labor meant simple physical work requiring no schooling—shoveling, sweeping, pushing, and pulling—it would seem that education should have no correlation with unemployment among the unskilled. Analysis of the data revealed a stunning finding: schooling was even more important for unskilled workers than for other workers. Additional years in the classroom gave applicants an edge for unskilled jobs—perhaps because employers felt that they worked harder or understood directions better, or because they were better able to find such jobs in the first place.²³

A striking feature of the 1930s was the variety of serious and energetic attempts made to combat unemployment. If one technique failed, or made matters worse, another would be immediately adopted with the same enthusiasm and confidence that at last the solution was at hand. Supply-side economics was central to the New Deal. The main difference from the 1980s version was that the New Dealers worked vigorously to contract the supply of labor by increasing flows A, B, and G in Figure 2. Senator Hugo Black’s 30-hour bill, a favorite panacea of the American Federation of Labor (AFL), did not pass, but its substitute, the National Industrial Recovery Act (NIRA), sought recovery through minimum wages and the reduction of hours. The NRA did reduce the total number of hours worked in the nation, and thus reduced the total GNP and average real income.²⁴ The

23 George Psacharopoulos (ed.), *Economics of Education: Research and Studies* (New York, 1987); Alfred A. Hunter, “Formal Education and Initial Employment: Unravelling the Relationships between Schooling and Skills over Time,” *American Sociological Review*, LIII (1988), 753–765.

24 After two years, the NRA had increased wages by 50–70%, raised prices by 30%, reduced GNP by 16%, and increased unemployment by about 6% of the labor force, according to the estimates of Michael Weinstein, “Some Macroeconomic Impacts of the National Industry Recovery Act, 1933–1935,” in Brunner (ed.), *Great Depression Revisited*, 262–281; Weinstein, *Recovery and Redistribution under the N.I.R.A.* (Amsterdam, 1980), 59, 133.

Civilian Conservation Corps (CCC) kept several hundred thousand young men at a time off the labor market. Child labor codes in the NRA effectively removed youths under sixteen from the labor market, and home work was drastically curtailed. Public opinion strongly supported federal and state efforts, echoed by many local governments, school boards, utilities, and other large employers, to prevent wives from working if the husband (the “breadwinner”) had a job. Alien Mexican families were given one-way rail tickets back home. The Social Security program did not have much effect on older people until the 1950s, but meanwhile railroad retirement and old age assistance for the poor who stopped looking for jobs reduced the supply of labor.

As late as 1937, Roosevelt’s aides were drafting laws to shorten the work week to thirty-five hours, require premium pay for overtime, and fix the minimum hourly wage at 80 cents (far above the prevailing 63-cent rate). They failed, and the much watered down Fair Labor Standards Act of 1938 established a 25-cent-per-hour minimum wage which covered 43 percent of the nation’s wage earners. The final, and successful supply-side remedy was the draft, and after 1940 the increase in military personnel paralleled the reduction of unemployment. The problem with the supply-side remedies was that they cut output as much as input, made the nation poorer, slowed long-term growth, distorted personal choices, and increased unemployment.²⁵

Three policy options were not chosen in the 1930s, and, given their attractiveness today, one has to wonder why not. The first policy was Keynesian demand management. Some historians have suggested that Roosevelt was moving toward Keynesianism by 1937 or 1938. Regardless of the mood of the White House, the overall stimulus of government spending and taxation was negative. The full employment federal-state-local budget nearly every year was in surplus, not deficit. In Keynesian terms, the veterans’ bonuses of 1931 and 1936 were the biggest stimuli toward recov-

25 George E. Paulsen, “Ghost of the NRA: Drafting National Wage and Hour Legislation in 1937,” *Social Science Quarterly*, LXVII (1986), 241–254; Benjamin Kline Hunnicutt, *Work without End: Abandoning Shorter Hours for the Right to Work* (Philadelphia, 1988). Clarence D. Long, *The Labor Force Under Changing Income and Employment* (Princeton, 1958), 204; Robert Higgs, *Crisis and Leviathan: Critical Episodes in the Growth of American Government* (New York, 1987), 226. For an able refutation of negative supply side, see Paul H. Douglas and Aaron Director, *The Problem of Unemployment* (New York, 1931), 159–164.

ery to come out of Washington. Other years, spending was too low, and taxes were too high to stimulate the economy. It is hard to see how the New Deal could have spent much more money than it did. Tax cuts were never on the New Deal agenda. Taxes were raised regularly throughout the decade, to score political points at the federal level and to cover the huge rise in relief costs and decline in revenues at the state level. Indeed, Washington demanded that the states raise taxes to cover their share of the relief burden.²⁶

Economists agree that Keynesian stimuli would not have helped structural or hard-core unemployment, only cyclical unemployment. As Table 1 suggests, about half of the unemployment was cyclical from 1931 through 1933; it was then that stimulus was needed and might have worked. By 1933, the appearance of a large, new, structural/hard-core element raised the natural level of unemployment from the 5 to 6 percent range to 12 to 15 percent. If a Keynesian stimulus had been tried and it had eliminated cyclical unemployment, the remaining unemployment still would have been 10 to 15 percent. Further fiscal or monetary stimuli would have resulted in inflation.²⁷

26 Casson, *Economics of Unemployment*, 128–165. Cf. Beatrice C. Reubens, *The Hard-to-Employ: European Programs* (New York, 1970). In view of the damage caused by the Federal Reserve Board's reduction of the money supply, and the Smoot-Hawley tariff, the government would perhaps have done better by doing nothing at all in 1929–1931. However, by 1933 the damage was done, and both counter-cyclical and structural reforms were urgently needed. Herbert Stein, *Fiscal Revolution in America* (Chicago, 1969); E. Cary Brown, "Fiscal Policy in the 'Thirties: A Reappraisal," *American Economic Review*, XLVI (1956), 857–879; Larry C. Peppers, "Full Employment Surplus Analysis and Structural Changes: The 1930s," *Explorations in Economic History*, X (1973), 197–210; Michael Bleaney, *The Rise and Fall of Keynesian Economics* (New York, 1985), 45–52. With a fiscal multiplier of two and a homogeneous labor force, the deficit needed to eliminate the 13% cyclical unemployment in 1933 would have been \$4.4 billion, about the same as the entire fiscal year 1933 federal budget. The political (im)possibilities are explained in Robert Paul Browder and Thomas G. Smith, *Independent: A Biography of Lewis W. Douglas* (New York, 1986), 84–116; James E. Sargent, "Woodrum's Economy Bloc: The Attack on Roosevelt's WPA, 1937–1939," *Virginia Magazine of History and Biography*, XCIII (1985), 175–207. On the infeasibility of a Keynesian solution in Britain, see Derek H. Aldcroft, *The British Economy: The Years of Turmoil, 1920–1951* (Atlantic Highlands, N.J., 1986). Mark H. Leff, *The Limits of Symbolic Reform: The New Deal and Taxation, 1933–1939* (New York, 1984); Thomas M. Reaghan, "Distributional Effects of Federal Tax Policy 1929–1939," *Explorations in Economic History*, XXI (1984), 40–63; Kenneth Roose, *The Economics of Recession and Revival: An Interpretation of 1937–39* (New Haven, 1954); James T. Patterson, *The New Deal and the States* (Princeton, 1969), 46–47, 64–73; William R. Brock, *Welfare, Democracy, and the New Deal* (New York, 1988), 204–249.

27 Because of the debt burden, inflation would have helped some people; it would have

The second policy was a restructuring of industrial processes to make use of the limited, but existing skills of the hard-core unemployed. Although businesses probably would eventually have followed this policy, there was no short-term pressure or inclination to do so. The depression called for defensive pessimism, not buoyant optimism, so it was unlikely that many entrepreneurs could have started up new firms and made profits by hiring the low-wage, low-productivity workers. Local governments began experimenting with work-relief projects as early as 1930, with the explicit goal not of constructing useful edifices but of finding work that the least skilled could do. The CCC, with its unskilled forest jobs for youths, and the WPA, with its light construction projects for adults, continued this goal. But at no time in the 1930s was there any effort to help private industry change its desired mix of skills. Needed was some way to subsidize employers of the structurally unemployed. Irving Fisher, one of the major economists of the century, and one who had Roosevelt's ear, strongly recommended wage subsidies. But the Treasury rejected such a plan with the retort it would create few jobs—thereby missing an opportunity to help the hard core return to the labor market. Ardent New Dealers, furthermore, recoiled at the notion of subsidizing “economic royalists” like the Rockefellers and the Mellons, whom they blamed for causing the depression, and for injustice in general.²⁸

hurt others and caused severe political problems. All current macroeconomics texts explain the natural rate of unemployment. See notes 29 and 30; Gordon, *Macroeconomics*, 322–332; John Haltiwanger, “Natural Rate of Unemployment,” in John Eatwell, Murray Milgate, and Peter Newman (eds.), *The New Palgrave: A Dictionary of Economics* (New York, 1987), III, 610–612; Derek Robertson, *Monetarism and the Labour Market* (Oxford, 1986), 341–414. My argument is congruent with Blanchard and Summers, “Beyond the Natural Rate Hypothesis,” *American Economic Review*, LXXVIII (1988), 182–187.

28 Piore, “The Impact of the Labor Market Upon the Design and Selection of Productive Techniques Within the Manufacturing Plant,” *Quarterly Journal of Economics*, LXXXII (1968), 602–620. Lester, “Emergency Employment in Theory and Practice,” *Journal of Political Economy*, LXII (1934), 466–491. Local relief agencies did subsidize workers whose incomes were too low. However, this subsidy did not increase the demand for their labor. For a national plan to subsidize workers, see Albert L. Deane, “After NIRA—A Lasting Recovery,” *Survey Graphic*, XXII (1933), 512–533; Hunicutt, *Work without End*, 232–235. Robert H. Haveman and John L. Palmer (eds.), *Job for Disadvantaged Workers: The Economics of Employment Subsidies* (Washington, D.C., 1982); Baily and Tobin, “Macro-Economic Effects of Selective Public Employment and Wage Subsidies,” *Brookings Papers*, No. 2 (1977), 511–541; George E. Johnson and P. R. G. Layard, “The Natural Rate of Unemployment: Explanation and Policy,” in Ashenfelter and Richard Layard (eds.), *Handbook*

In a deeper sense, the New Dealers were unwilling or unable to collaborate with business. They planned structurally to “reform” business rather than help it to promote structural “recovery.” High-wage doctrine suggested building up labor unions to enhance their “bargaining power” in negotiating higher wages with management. Problems arose because pressure for higher wages also was pressure for efficiency wages. In addition, after 1935 the new unions demanded seniority provisions to protect their core workers; management agreed in order to avert strikes. Seniority helped to protect the better workers against unemployment; it worsened the troubles of marginal workers.²⁹

The third structural alternative was training to enhance the productivity of the hard-core unemployed. In macroeconomic terms, increasing the productivity of labor is the best way to reduce unemployment permanently without causing damaging side effects like inflation. A silent, deadly effect of the Great Depression was that firms sharply reduced on-the-job training. By the end of the decade, widespread shortages of skilled labor indicated that the nation had been living off its accumulated stock of human capital. Training of the hard-core unemployed by efficiency-wage firms would have reduced structural unemployment somewhat, paid for itself in reduced welfare expenditures, and made the economy as a whole permanently more productive and richer. Popular and political support for a large training program would probably have been strong, and there is evidence that the unemployed recognized their lack of skills and wanted

of Labor Economics, II, 947–956. William R. Allen, “Irving Fisher, F.D.R., and the Great Depression,” *History of Political Economy*, IX (1977), 575–576. For a representative proposal, see Malcolm C. Rorty, “How May a Business Revival Be Forced?” *Harvard Business Review*, X (1932), 385–398. For analysis, Nicholas Kaldor, “Wage Subsidies as a Remedy for Unemployment,” *Journal of Political Economy*, XLIV (1936), 721–742. States and localities today routinely offer tax, training, and land deals for new industries; this practice began in Mississippi in the late 1930s. Richard Lowett and Maurine Beasley (eds.), *One Third of a Nation: Lorena Hickock Reports on the Great Depression* (Urbana, 1981), 291–294, 347. Federal Emergency Relief Administration, *Monthly Report* (June 1935), 8–15; James Holt, “The New Deal and the American Anti-Statist Tradition,” in John Braeman et al. (eds.), *The New Deal* (Columbus, 1975), I, 39–41.

29 Christopher L. Tomlins, *The State and the Unions: Labor Relations, Law, and the Organized Labor Movement in America, 1880–1970* (New York, 1985), 99–102; Slichter, *Union Policies*, 151–163. New personnel practices tied the worker more closely to the firm and, at the same time, displaced old paternalistic relationships. Daniel Nelson, *American Rubber Workers and Organized Labor, 1900–1941* (Princeton, 1988), shows how this combination readied the employees for unionization.

additional vocational training. Training would have been cheaper than the WPA, and the results more valuable and durable than its physical accomplishments. Furthermore, the people, the program (the WPA), and the money were there, ready to be used. Most of all, training programs would have reduced the main human costs of the depression.³⁰

The public schools continued in operation, and high school enrollments continued to grow. High schools and junior colleges expanded their vocational training programs, lobbying Congress successfully for more money over President Roosevelt's strong objections. Roosevelt viewed "his" CCC and National Youth Administration (NYA) as competitors of the old-fogy public school system, and made sure that the latter was excluded from both the policy-making and the largess of the New Deal. The president felt deeply that a new collective ethic had to achieve hegemony if the failures of the old era were permanently to be buried. The educational system was too wedded to the old order, and its training programs reflected the sort of individualism that he opposed. "I believe in individualism," he said in justification of the New Deal, "up to the point where the individualist starts to operate at the expense of society."³¹

The CCC had a minuscule educational component that was out of favor with both the CCC administration and the enrollees. After working eight hours in the woods, they could take superficial classes if they wished. The NYA had a work program that reached millions of youth, but was badly managed and severely underfunded, and provided only two days of poorly supervised, dead-end work each week. The WPA decided not to provide training for the millions of men it employed. The chief obstacle was intense opposition from organized labor. Although unions

30 Richard A. Jackman, Richard Layard, and Christopher Pissarides, "Policies for Reducing the Natural Rate of Unemployment," in Butkiewicz et al. (eds.), *Keynes' Economic Legacy*, 111–133. In rural (non-union) areas, the New Deal did attempt structural reform and retraining, through the Farm Security Administration and the Tennessee Valley Authority. Ewan Clague and Saya S. Schwartz, "Real Jobs—or Relief?" *Survey*, XXIV (1935), 293–295. Howard M. Bell, *Youth Tell Their Story* (Washington, D.C., 1938), 70–72.

31 Roosevelt's speech of 14 Oct. 1936, in Samuel I. Rosenman (ed.), *The Public Papers and Addresses of Franklin D. Roosevelt*, (New York, 1938), V, 488. See also David Tyack, Robert Lowe, and Elisabeth Hansot, *Public Schools in Hard Times: The Great Depression and Recent Years* (Cambridge, Mass., 1984), 109–138; Edward A. Krug, *The Shaping of the American High School, 1920–1941* (Madison, 1972), 310–311.

were weak in 1933, the New Dealers were solicitous of their fears, and accepted the argument that training new people would create injurious competition for union members. Most important, supply-side reductions meant that there could be no supply-side improvement. Roosevelt had personally to escort President William Green of the AFL through the first CCC camp to demonstrate that the forestry skills the boys learned would not help them compete with union members for real jobs. The AFL, however, strenuously opposed the NYA's training programs and vetoed WPA training.³²

Beyond the training opportunities lost, an equally serious criticism is that the main work-relief programs, especially the WPA, had a negative training effect. Nine of ten WPA jobs were unskilled; when heavy construction equipment was used, an operator not on relief would be called in. Job skills rusted; the stimulus of ambition through promotions, pay raises, and seniority was stifled; the rhythms of industrial time were forgotten; the efficiency-wage imperatives against slacking were ignored. In stark contrast to normal work environments, in the WPA the most senior employees were the worst workers: the least skilled, the least employable, and the least likely to offer leadership to their co-workers. Since there was a cap on the maximum amount a person could earn each month on the WPA, and since every worker was supposed to receive the "prevailing" (that is, union) hourly wage, the number of hours a month a person was allowed to work varied greatly. The most skilled worked only forty-three hours a month, so they were often unavailable to help the less skilled. Furthermore, the "bosses" and foremen were chosen and motivated more by politics than ability, and were notoriously poor managers.³³

32 John Salmond, *Civilian Conservation Corps* (Durham, 1976); Paul Bullock, *Youth Training and Employment: From New Deal to New Federalism* (Los Angeles, 1985), 31–65; Kenneth Holland and Frank Ernest Hill, *Youth in the CCC* (Washington, D.C., 1942), 166–189. The NYA was more a relief than a training agency. Youths worked only 52 hours a month; there was no training the rest of the time. Instructors and equipment were of poor quality, and youths were kept on the same low-skilled jobs long after they had learned what there was to know about them. Lewis L. Lorwin, *Youth Work Programs: Problems and Policies* (Washington, D.C., 1941), 110–115; Barbara Blumberg, *The New Deal and the Unemployed: The View from New York City* (Lewisburg, Pa., 1979), 114–115; Nels Anderson, *The Right to Work* (New York, 1938), 101, 113–114; Howard, *WPA*, 237; Michael S. Holmes, *The New Deal in Georgia* (Westport, 1975), 108; Bonnie Fox Schwartz, *The Civil Works Administration, 1933–1934* (Princeton, 1984), 102–128.

33 Howard, *WPA*, 245, 250–252, 258, 516, 781; E. Wight Bakke, *The Unemployed Worker*

Everywhere WPA workers were ridiculed and stigmatized as unsatisfactory employees. As a Boston employer grumbled, “They come to us with so many mind hazards that they are no good to us.” Hallie Flanagan, the director of the WPA’s theater project, told the poignant story of a delegation of her actors “complaining bitterly because I wanted them to have their names on programs.” They feared they might be rejected for legitimate jobs if their WPA record were publicized. The government is paying your salary so “you’ll be proud to have your name appear,” Flanagan insisted to the distraught petitioners. According to one workers’ spokesman, the WPA “has meant so much in hardship, humiliation, bad working conditions and jobs not in their own trade, that they want to get off the rolls as quickly as possible.” While emergency relief workers were not getting either classroom or on-the-job training, their competitors in the labor force were moving ahead. One estimate is that the value of on-the-job training for employed men having only an elementary education was about \$2,000 in 1939, or the human capital equivalent to more than a year’s pay. The value for the WPA workers was close to zero.³⁴

As war drew near, the intense shortage of skilled workers made the New Deal’s and unions’ opposition to training programs untenable. The CCC, NYA, and WPA began training programs for a small fraction of their constituents, emphasizing skills like welding, shipbuilding, aircraft maintenance, and automobile repair that were of minimal threat to unions. More important to the war effort, and to the hard core, were programs based on the vocational education systems of the public schools. More than 5

(New Haven, 1940), 402–420; Emily N. Bartlett, “WPA Employment as Viewed by the Clients of a Family Agency,” *Smith College Studies in Social Welfare*, VIII (1938), 275–276; Lester, *Economics of Labor*, 398.

34 Gertrude Springer, “Relief in November 1938,” *Survey Monthly* (1938), 340; Eleanor Peyton Quarles, “The Handicaps of WPA Workers in Job Placement,” *Smith College Studies in Social Welfare*, XI (1940), 109–130; Eli Ginzberg, *The Unemployed* (New York, 1943), 123, 132; U.S. Office of Education (USOE), *Preemployment Trainees and War Production* (Washington, D.C., 1944), 21. Hallie Flanagan, *Arena: The Story of the Federal Theatre* (New York, 1940), 52. House Subcommittee on Appropriations, *Investigation and Study of the Works Progress Administration*, 66th Cong., 1st sess., part 1 (1939), 31–32. Jacob Mincer, “On-the-Job Training: Costs, Returns, and Some Implications,” *Journal of Political Economy*, LXX (1962), 55. On-the-job training held by high school graduates was worth \$4400, and that of collegians, \$7900.

million workers were retrained.³⁵ America's 16 million soldiers spent most of their time in training—some for combat, most for the clerical, mechanical, and managerial challenges of winning the war. The wartime experience and the retraining provided by the postwar GI bill suggest that the work-relief programs of the 1930s could have been important vehicles of vocational education, but for the ideological opposition of the New Deal and its allies.

But what would even a massive retraining and educational program have achieved during the depression? Would not the effect have been merely to equalize the hardship? Yes. However, the problem was not so much the depth of the depression as the unequal distribution of hardships. The real GNP had declined 30 percent, and consumption fell 20 percent from its peak in 1929 to its low in 1933. In the worst years, 1932 through 1934, per capita real consumption was about the same as in the early 1920s, and per capita real GNP was only slightly lower. Conditions were far worse in the early 1930s than a decade before because the hardship was concentrated on the least efficient, least skilled, poorest third of the population.³⁶ Moving millions of these people into the mainstream labor force, where they could have competed for job openings, would have been a highly desirable outcome. The benefits of training would have accrued for decades to come, not just to the recipients but to the whole country. A program targeted on the least privileged third would have been consonant with New Deal liberalism, and yet would have occasioned very little conservative protest, as the enormous popularity of the CCC suggests. The labor unions that feared the training programs should have realized that their own members often lost jobs because they had not learned new skills. The tragedy of the depression was not

35 Federal Works Agency, *Report on Progress of the WPA Program, 1941* (Washington, D.C., 1942), 29–53, *idem, Report on Progress of the WPA Program, 1942* (Washington, D.C., 1943), 14–16; Lorwin, *Youth Work Programs*, 118–126; Howard, *WPA*, 241; Salmond, *A Southern Rebel: The Life and Times of Aubrey Willis Williams, 1890–1965* (Chapel Hill, 1983), 141–172. On shortages, see John B. Parrish, “Changes in the Nation’s Labor Supply, 1930–1937,” *American Economic Review*, XXIX (1939), 325–336, USOE, *Preemployment Trainees*; “Supplementary Trainees and War Production,” in USOE, *Vocational Division Bulletin #226* (1944); War Manpower Commission, *The Training within Industry Report: 1940–1945* (Washington, D.C., 1945).

36 Consumption and GNP data from Nathan S. Balke and Gordon, “Historical Data” in Gordon (ed.), *American Business Cycle*, 782–787.

that incomes declined on average—they fell only to 1920 levels—but that the burden was so unequally shared.

In recent years, some historians have attacked the New Deal as too fainthearted in its assault on unemployment. The WPA is criticized for reaching less than half the total unemployed, whereas the unrestricted Civil Works Administration (CWA) is celebrated. “WPA did not go far enough,” concludes one leading historian. Its wages were inadequate, and its “halfway measures did not provide the massive stimulus the economy needed.” A more radical historian announced, “The new semi-welfare state offered little immediate help to the poor.” The criticism is misplaced. Omnibus public works programs, like the CWA and the Public Works Administration (PWA), focused on cyclical unemployment and reached normal workers more than the hard core. By 1935, the New Deal realized that the hard core were a special problem (and a special political opportunity). Roosevelt and Harry Hopkins, his administrator of relief, designed their solution, the WPA, to aid the hard core by employing one person in each family on relief. By 1936 it was close to its projected numerical target, and paid wages higher than the hard-core unemployed could command on the market. People on relief vastly preferred it to the old system of cash payments (“home relief”) because it gave them a productive role in society. The WPA provided more job security than they could earn with their poor job skills; they were under no pressure to search for regular jobs, and few did so.³⁷

Although it is hardly original to observe that the war “cured” unemployment, it is difficult to decide exactly which wartime

37 John A. Garraty, *The American Nation* (New York, 1983; 5th ed.); Michael B. Katz, *In the Shadow of the Poorhouse: A Social History of Welfare in America* (New York, 1986), 208. Perhaps the historians critical of the New Deal from the left are lamenting the failure of Roosevelt to topple capitalism. But socialism would not have helped the hard core. They should try criticizing Roosevelt for bolstering instead of eradicating the Fordism and efficiency-wage policies that caused joblessness for workers with low productivity. See William H. Simon, “Rights and Redistribution in the Welfare System,” *Stanford Law Review*, XXXVIII (1986), 1506–1508; Jerold S. Auerbach, “New Deal, Old Deal, or Raw Deal: Some Thoughts on New Left Historiography,” *Journal of Southern History*, XXXV (1969), 18–30; William W. Bremer, “Along the ‘American Way’: The New Deal’s Work Relief Programs for the Unemployed,” *Journal of American History*, LXII (1975), 636–651. Economists are unanimous on the dangers of work relief programs not targeted for the hard core. Palmer (ed.), *Creating Jobs: Public Employment Programs and Wage Subsidies* (Washington, D.C., 1978). Howard, *WPA*, 32, 562; Springer, “Relief in November 1938,” 339–344; Bakke, *Unemployed Worker*, 420–425.

policies had which short-term effects. But we need to discover how the war cured hard-core unemployment permanently. On the supply side, the growth of high schools and colleges, the postwar draft, and Social Security retirements removed young and old from the labor force. Wartime training and experience, in industry and in the military, made workers more productive, and upgraded skills so that the supply of unskilled labor was much smaller. In terms of efficiency wages, employers reshaped jobs to suit the skills and increase the productivity of available workers. They had to use men (and women) whom they would not have dreamed of hiring a few years before.

Personnel management became even more important. The number of industrial-relations staff rose from 2.5 per 1000 employees in 1937 to 8.0 in 1948. They were charged with improving productivity despite the extraordinary shortage of manpower, the high quit rates, the government-imposed wage freeze, and the new strength of labor unions. They dropped categorical restrictions against the poorly educated, the unemployed, women, the old, the handicapped, and sometimes, in spite of intense resistance, blacks. Recruitment of new workers became an art form, with sound trucks blaring in the streets beseeching people to come to work and earn big money. Jobs were restructured so that fewer skills were needed. Intensive in-shop and in-school training programs reached millions. Anyone with a modicum of skill was rapidly promoted, even to the status of foreman or instructor. The results further justified the use of efficiency-wage procedures, but this time efforts were made to find the right niches for workers who had been “hopelessly unemployable” in the 1930s.³⁸

We can now explain the causes, characteristics, and cures of the extraordinary unemployment of the Great Depression. Throughout the decade, 2 to 5 percent of the work force was experiencing normal or frictional unemployment. Cyclical “no fault” unemployment was a grave matter primarily from 1931 to 1934, when it affected from 8 to 14 percent of the labor force.

38 Gladys M. Kammerer, *Impact of War on Federal Personnel Administration, 1939–1945* (Lexington, Ky., 1951); D’Ann Campbell, *Women at War with America: Private Lives in a Patriotic Era* (Cambridge, Mass., 1984), 101–137; Constance McLaughlin Green, *The Role of Women as Production Workers in War Plants in the Connecticut Valley* (Northampton, 1946); Dale Yoder, *Personnel Management and Industrial Relations* (New York, 1950; 3rd ed.), vii, 64n.

Long-term or hard-core structural unemployment of 10 percent of the labor force was the intractable problem. It was heavily concentrated among the less efficient workers, as identified by prospective employers. Lack of “trainability” was their chief problem, one identified by employers in terms of lack of education or experience, old age, and race. The labor unions blocked vitally needed retraining programs. The aggressive unions, by demanding higher wages and more lenient shop-floor discipline, pushed management into more careful hiring practices.³⁹ It was business that introduced the new efficiency-oriented hiring standards. Everyone shared the blame when the new system unexpectedly interacted with a downturn in the business cycle to transform a transition into a tragedy.

Hoover and Roosevelt both made matters worse and delayed recovery. Their successful efforts to keep wages high accelerated the transition and increased structural unemployment.⁴⁰ The supply-side labor reductions under the New Deal made the nation poorer and less able to handle the crisis. Roosevelt correctly targeted his solution, the WPA, exclusively on the hard-core unemployed, and funded it with one third of the federal budget, or 3 percent of the GNP. However, the WPA did nothing to end the exclusion of the hard-core from normal labor markets; it made them even less employable. The refusal of the New Deal on ideological grounds to consider wage subsidies or training programs guaranteed that the hard-core would stay down, even as they hailed Roosevelt for rescuing them from utter destitution. Subsidies and training would have reduced the structural unemployment that was the greater problem after late 1933. The war, by removing millions of prime men from the labor market, by restructuring the work process, by subsidizing wages, and by massive retraining, finally gave the private sector the methods and the incentives to rehire the hard-core. Never since has hard-core unemployment affected more than one worker in a hundred.

In long-term perspective, the shift to efficiency wages was a highly desirable, and widely accepted national decision, for it led to an affluent society, with high productivity, high wages, and a

39 Jacoby, *Employing Bureaucracy*, 225, 234.

40 Thomas Wilson, *Fluctuations in Income and Employment* (New York, 1948), 162, 176, 186.

high standard of living. It necessitated a well-educated, hard-working labor force that would be eager for new training, and be willing to search for new jobs. It required as well astute business managers sensitive to the human-relations dimensions of productivity. It required a national commitment to education, and to a free flow of workers across space and across class boundaries. It required the ending of inefficient labor—such as child labor, casual unskilled work for subminimum wages, and sweatshop conditions. The old order, with heavy rates of turnover, low wages, and high insecurity, was doomed when Ford announced the \$5-day.⁴¹

Republicans and Democrats, capitalists and unionists hailed the new order. Europeans were mesmerized by the vision of the future rising in the west. A member of Roosevelt's "Brain Trust" declared in 1933 that "A nation of well-paid workers, consuming most of the goods it produces, will be as near Utopia as we humans are ever likely to get."⁴² Today, Americans worry more about federal deficits and international competition, and realize that wages that are too high may cause the loss of jobs and even whole industries. The national consensus in 1988 was for structural solutions, based on education and training. Only after World War II replaced the New Deal did the nation adopt the structural reforms that were necessary to support the low unemployment, high productivity, high wage economy that the people sought. Meanwhile, the utterly unexpected consequence was a decade of hard-core unemployment.

41 On the old order, Daniel T. Rodgers, "Tradition, Modernity, and the American Industrial Worker: Reflections and Critique," *Journal of Interdisciplinary History*, VII (1977), 655–681; Keyssar, *Out of Work*, 39–176; on the new, Slichter, "Current Labor Policies," 393–435; Harry T. Oshima, "The Growth of U.S. Factor Productivity," *Journal of Economic History*, XLIV (1984), 161–170; Gavin Wright, "Labor History and Labor Economics," in Alexander Field (ed.), *The Future of Economic History* (Boston, 1987), 313–348.

42 Rexford G. Tugwell, *The Industrial Discipline and the Governmental Arts* (New York, 1933), 183. On Europe, see Charles S. Maier, *In Search of Stability* (New York, 1987), 22–53. On consensus, Lescohier, *History of Labor*, III, 88–91.