



IRLE WORKING PAPER  
#12-88  
April 1988

## Interwar Unemployment In International Perspective

Barry Eichengreen and Tim Hatton

Cite as: Barry Eichengreen and Tim Hatton. (1988). "Interwar Unemployment In International Perspective."  
IRLE Working Paper No. 12-88. <http://irle.berkeley.edu/workingpapers/12-88.pdf>



**Title:**

Interwar Unemployment in International Perspective

**Author:**

Eichengreen, Barry, University of California, Berkeley  
Hatton, Tim, University of Essex

**Publication Date:**

04-01-1988

**Series:**

Working Paper Series

**Publication Info:**

Working Paper Series, Institute for Research on Labor and Employment, UC Berkeley

**Permalink:**

<http://escholarship.org/uc/item/7bw188gk>

**Keywords:**

Eichengreen, Hatton, unemployment, international perspective

**Copyright Information:**

All rights reserved unless otherwise indicated. Contact the author or original publisher for any necessary permissions. eScholarship is not the copyright owner for deposited works. Learn more at [http://www.escholarship.org/help\\_copyright.html#reuse](http://www.escholarship.org/help_copyright.html#reuse)



Interwar Unemployment in International Perspective

Barry Eichengreen  
University of California, Berkeley

Tim Hatton  
University of Essex

January 1988

This paper is the editors' introduction to a volume of the same name,  
to be published by Martinus Nijhoff later this year.

## INTERWAR UNEMPLOYMENT IN INTERNATIONAL PERSPECTIVE

The outstanding internal economic problem of the interwar period in all countries studied was undoubtedly unemployment. Next to war, unemployment has been the most widespread, most insidious and most corroding malady of our generation; it is the specific disease of western countries in our time. It varied in intensity in the different countries but in nearly every industrial country it held the center of the social and economic stage in the interwar years. It was a social evil more than an economic evil. Its effects in terms of personal insecurity, maldistribution of income, and the deterioration of health, technical skill and morale were probably greater than the waste of resources and potential wealth involved. At the same time the pressure of the problem on national government was perhaps the most decisive disrupting factor in international economic relations (Arndt, 1944, p. 250).

### 1. Introduction

For two decades after the Second World War, many economists and politicians thought that the battle against large-scale unemployment had been won. Since 1970, however, the armies of full employment have suffered a series of reversals. The US unemployment rate doubled between the late 1960s and 1980 and has shown disturbingly little tendency to decline since. Unemployment in the Common Market countries of Europe also doubled over the decade up to 1980 and, more distressingly, doubled again over the first half of the current decade. For the OECD as a whole, the standardized unemployment rate has risen from 5.1 per cent in 1977, when this statistic was first calculated, to 8 per cent in 1985.<sup>1</sup> With increasing frequency, parallels are drawn with the heretofore unprecedented experience with large-scale unemployment during the interwar years.

It is hard to know what to make of the comparison, for the literature on interwar unemployment is circumscribed by two serious limitations. A first limitation is that the recent literature is confined almost exclusively to the

experience of two countries: the United States and the United Kingdom. There is little scholarly literature on interwar unemployment in a surprising number of other countries. While the unemployment experience of other countries has been the subject of the occasional study, the specialized approaches taken have not permitted comparisons or generalizations. A second limitation is that the literature on interwar unemployment is heavily macroeconomic and based on highly imperfect macroeconomic indicators. Investigators have remained preoccupied by the behavior of the aggregate unemployment rate as measured by trade union returns or unemployment insurance statistics. Despite the questions that can be raised about the reliability of those statistics and about their comparability across countries, the standard series continue to serve as the basis for a steady stream of macroeconomic studies. By comparison, little systematic attention has been devoted to the incidence of interwar unemployment (what groups of workers were at risk), the effects of interwar unemployment (particularly implications for poverty, malnutrition and employability), and responses to interwar unemployment by labor force participants and their families.

For observers merely interested in invoking interwar experience as an illustration of how disastrous for an economy and society large-scale unemployment can be, aggregate unemployment rates may suffice, even if limited to the US and the UK and measured with serious error. For the rest, the true dimensions of interwar unemployment experience remain obscure. How, for example, did the characteristics of interwar unemployment vary across countries? How did the characteristics of high unemployment in the 1930s differ from the characteristics of high unemployment in the 1980s? What can we learn about the incidence of unemployment, its effects, and the responses it elicited?

This volume presents a set of specially commissioned studies designed to address these questions. It summarizes the proceedings of a conference which brought together an international, interdisciplinary group of scholars concerned with the problem of interwar unemployment. Following a chapter reassessing the macroeconomic evidence are nine country studies focusing on the experiences of the UK, Germany, Italy, Belgium, France, the United States, Canada and Australia. While differences in historical circumstances and source materials dictate different approaches to the country studies, each attempts to speak to a common set of issues: the incidence of unemployment, the effects of unemployment, and the response of the unemployed. The all but total absence of a literature on interwar

unemployment in a number of these countries means that many authors are venturing out into uncharted terrain. Although as a result they sometimes are unable to provide definitive answers to the central questions -- Who was unemployed? What were the effects of unemployment? What was the response of the unemployed? -- even the most basic facts about interwar unemployment shed important new light on questions previously shrouded in darkness.

## **2. The Emergence of the Problem**

Though the existence of worklessness had been recognized for centuries, it was not until the 1890s that the term unemployment gained widespread currency. According to Garraty, "Suddenly unemployment had become a burning issue; books and the reports of government investigators began to come out in ever larger numbers" (1978, p. 121). This "discovery" of unemployment can be traced to a combination of factors. First, the growing complexity of the labor market and of its industrial relations drew attention to employment conditions. Second, social surveys linked poverty and moral degradation to low-wage labor and intermittent employment. Third, the depression of the 1890s created growing awareness of the cyclical character of employment opportunities and led ultimately to recognition that unemployment was an economic phenomenon or "problem of industry" rather than one of individual inadequacy.

In Victorian Britain, social commentators referred typically not to unemployment but to pauperism, vagrancy and destitution. According to Harris (1972, p. 1), "For fifty years after the Poor Law Reform of 1834, unemployment as a serious theoretical and practical question was virtually ignored by English economic theorists and social reformers." Not only was the adjective "unemployed" current while the noun "unemployment" was not, but the adjective was used to denote persons not working whatever the reason, including even invalids and women who had ceased to work on marriage. Trade union unemployment rates derived from records of unemployed persons receiving out-of-work donations might themselves include both types of individuals (Garside, 1980, pp. 10-13). Reference to unemployment first became commonplace in the 1880s. Taylor's (1909) bibliography of works on unemployment offers one means of tracing the concept's emergence. Under the categories "unemployment generally" and "causes of unemployment", she lists fewer than three works per decade over the period 1820 to 1880. This rises to 16 works in the 1880s, 77 in the 1890s, and 160 works from the beginning of 1900 to

the middle of 1909. On the basis of this and other evidence it is fair to conclude that only in the final decades of the nineteenth century did unemployment in Britain emerge as a major social issue. Conservative imperialists, Fabian socialists and New Liberals drawn together in the campaign for National Efficiency all saw recurrent short spells of unemployment as the principal cause of working-class poverty and degradation. These concerns, and the agitation they prompted, culminated in 1911 with the adoption of the beginning of Britain's unemployment insurance system.

Widespread recognition of the problem of unemployment emerged simultaneously in the United States.<sup>2</sup> Until the mid-1870s, men and women who had lost their jobs and were seeking employment were described as out of work, idle, involuntarily idle or loafing, but only rarely as unemployed. When the term was used, it referred generally, as in Britain and France, to persons idle or not working whatever the reason. Often individuals who would now be regarded as out of the labor force, including young children and the geriatric, were included under this label. The transition from concern over those with no occupation, "who take no part in the work of life," to concern over those experiencing "forced idleness", and the corresponding tendency to attach the label "unemployed" exclusively to members of the second category, occurred as early, if not earlier, in America as in Britain. Yet as late as 1875, to judge from the Massachusetts State Census of that year, the term "unemployed" had not yet acquired its modern meaning. Of those 350,000 Massachusetts residents classified as unemployed, most were children under the age of 10 living at home. Only in 1878 does a change become discernible. That year Carroll D. Wright, chief of the Massachusetts Bureau of Statistics of Labor (and later first head of the US Bureau of Labor Statistics), attempted to ascertain the number of able-bodied workmen who were unemployed. The instructions issued in conjunction with this survey reflect an evolution in the concept of the unemployed person and in the usage of the term. Police and assessors were instructed to enumerate those experiencing "forced idleness," omitting individuals under 19 years of age and those who did not "really want employment." As the word "unemployed" came to be acknowledged, over the course of the 1880s, as the label for those who were "involuntarily without employment" and its application was increasingly restricted to members of this group, the term began to lose the pejorative connotation it had carried previously. Still, it is revealing that, until the twentieth century, American experts referred not to unemployment but mainly to jobless wage earners, to the involuntarily idle and, as in Britain, to the unemployed. According

to Keyssar (1986, p. 4), the noun only appeared on the printed page in 1887, in the Eighteenth Annual Report of the Massachusetts Bureau of Statistics of Labor.

In France, the concept emerged somewhat later. France's rural character and the persistence of small-scale agriculture may have served to disguise the problem. The emergence of unemployment as a category conceptualized with sufficient precision for statistics on its incidence to be gathered has been traced by Salais, Baverez and Reynaud (1986) through the questionnaires used by government agencies. As late as the early 1890s, the French authorities, like their British counterparts, referred not to unemployment but to vagrancy and vagabondism. Social assistance societies distinguished three categories of vagabonds: invalids, the healthy in need of temporary assistance only, and the permanent vagabond who made a profession of seeking assistance. While the last two categories resemble the voluntarily and involuntarily unemployed, revealingly the term unemployment was not used. Similarly, while the 1891 census inquired into each individual's occupation, whether they worked outside the home, and whether they were self-employed or an employee, there was no opportunity to indicate whether a person was out of work. For those without a distinct occupation, the census merely inquired into the occupation of the head of household. In 1896, for the first time, the census included a question for people without a current position, distinguishing three reasons for their lack of work. The census report offered an explicit discussion of people in unemployment ("les personnes qui ont déclaré être en chômage"), suggesting, for example, that persons aged 65 and over should properly be regarded as no longer active and hence not among the unemployed.<sup>3</sup>

By the end of the second decade of the twentieth century, unemployment as a coherent aggregate -- on a par with other economic aggregates such as inflation and the trade cycle -- was firmly established. The alarming rise in the number of unemployed that occurred in the wake of the First World War in nearly every country reinforced this awareness. Unfortunately, awareness of the problem did not imply that contemporaries were well informed of its magnitude.

### **3 Aggregate Unemployment Statistics**

Aggregate unemployment statistics for the interwar period provide a highly imperfect measure of the phenomenon. It is some comfort that we have available a comprehensive analysis of the sources, characteristics and comparability of the statistics generated by public agencies and private bodies during the interwar years,



**Table 1.1 Unemployment Rates in Industry (in percentage points)**

Year	Australia	Belgium	Canada	Denmark	France	Germany	Nether	Norway	Sweden	U.K.	U.S.
1920	5.5	-	4.6	6.1	-	3.8	5.8	2.3	5.4	3.2	8.6
1921	10.4	9.7	8.9	19.7	5.0	2.8	9.0	17.7	26.6	17.0	19.5
1922	8.5	3.1	7.1	19.3	2.0	1.5	11.0	17.1	22.9	14.3	11.4
1923	6.2	1.0	4.9	12.7	2.0	10.2	11.2	10.7	12.5	11.7	4.1
1924	7.8	1.0	7.1	10.7	3.0	13.1	8.8	8.5	10.1	10.3	8.3
1925	7.8	1.5	7.0	14.7	3.0	6.8	8.1	13.2	11.0	11.3	5.4
1926	6.3	1.4	4.7	20.7	3.0	18.0	7.3	24.3	12.2	12.5	2.9
1927	6.2	1.8	2.9	22.5	11.0	8.8	7.5	25.4	12.0	9.7	5.4
1928	10.0	0.9	2.6	18.5	4.0	8.6	5.6	19.2	10.6	10.8	6.9
1929	10.2	1.3	4.2	15.5	1.0	13.3	2.9	15.4	10.2	10.4	5.3
1930	18.4	3.6	12.9	13.7	2.0	22.7	7.8	16.6	11.9	16.1	14.2
1931	26.5	10.9	17.4	17.9	6.5	34.3	14.8	22.3	16.8	21.3	25.2
1932	28.1	19.0	26.0	31.7	15.4	43.8	25.3	30.8	22.4	22.1	36.3
1933	24.2	16.9	26.6	28.8	14.1	36.2	26.9	33.4	23.2	19.9	37.6
1934	19.6	18.9	20.6	22.2	13.8	20.5	28.0	30.7	18.0	16.7	32.6
1935	15.6	17.8	19.1	19.7	14.5	16.2	31.7	25.3	15.0	15.5	30.2
1936	11.3	13.5	16.7	19.3	10.4	12.0	32.7	18.8	12.7	13.1	25.4
1937	8.4	11.5	12.5	21.9	7.4	6.9	26.9	20.0	10.8	10.8	21.3
1938	7.8	14.0	15.1	21.5	7.8	3.2	25.0	22.0	10.9	12.9	27.9
1939	8.8	15.9	14.1	18.4	8.1	0.9	19.9	18.3	9.2	10.5	-

*Notes:* Australia: Trade union reports corrected to eliminate unemployment for reasons other than nonavailability of work; Belgium: Statistics of voluntary unemployment insurance societies; Canada: Trade union reports adjusted from 1921 by the Dominion Bureau of Statistics; Denmark: Trade union unemployment insurance fund reports; France, Germany: see text; Netherlands: Trade union unemployment insurance fund returns; Norway: Trade union reports; Sweden: Trade union reports; U.K.: Unemployment insurance system series; U.S.: Lebergott estimates.

*Source:* Galenson and Zellner (1957), p. 455, Lebergott (1964), p. 512.

courtesy of Galenson and Zellner (1957). In addition to reviewing the standard series, Galenson and Zellner attempt to adjust the statistics for some countries to render them comparable internationally. These series, along with Lebergott's (1957) estimates of non-farm unemployment in the US, are presented in Table 1.1.

Trade union reports comprise the principal source of data on unemployment in Australia, Canada, Denmark, the Netherlands, Norway and Sweden. Unions in these and other countries provided benefits when their members fell out of work; it is from the proportion of members applying for or drawing payments that trade union unemployment rates are obtained. The British data arise from statistics collected in the course of the operation of the unemployment insurance system, under the provisions of which registration at a labor exchange was a condition for receipt of benefit. The Belgian statistics are a by-product of the local unemployment insurance societies established voluntarily between 1918 and 1920 to replace temporary relief measures instituted during the First World War.

The unemployment rate series for France and Germany were estimated by Galenson and Zellner from a variety of sources.<sup>4</sup> For France, the series up to 1930 is Agthe's, calculated as the ratio of the number of unemployed workers (based on a series for unplaced applicants for work) to the number of wage and salary earners enumerated in the 1926 census. After 1930 the total number of workers in employment, based on the 1931 census, is extrapolated to other years using the factory inspector's index of employment in industrial establishments of 100 or more workers. The series for Germany uses trade union reports up to 1932, spliced to a series for the subsequent period derived from employment exchange statistics. The overall level is fixed by the 1933 census, which recorded as unemployed 37.3 per cent of workers and employees in manufacturing, construction and mining. Lebergott's estimate for the US is the only measure not based on direct observations of the number of workers unemployed. It is derived instead by applying interpolated participation rates for different demographic groups to the annual movement of population, and subtracting from this estimate of the labor force an estimate of employment constructed from sectoral measures of activity.

These series may be regarded as reasonably reliable indicators of the profile of unemployment among wage earners in the industrial sector. Even here, however, biases arise from the construction of the estimates which may distort both the overall level of unemployment and the volatility of year-to-year fluctuations.

Problems of representativeness are particularly glaring in the case of series derived from trade union returns, which are generally weighted by membership rather than by the labor force in each industry or occupation. While trade union unemployment series in most countries are more broadly based for the interwar years than for the period prior to 1914, they still exclude much white-collar employment and most female workers. Undue weight is given to skilled and semi-skilled occupations relative to manual ones, and to old-established industries relative to new and emerging ones. The Australian returns, for example, tend to underrepresent the level of unemployment because many unemployed workers, having exhausted their benefits and with little chance of regaining employment in their customary occupation, let their union membership lapse.<sup>5</sup>

The unemployment insurance statistics are similarly contaminated by various sources of bias. In the UK where the insurance system was most comprehensive, it still covered only about two-thirds of wage and salary earners (less than half in the case of females), excluding workers in agriculture, domestic service, government, and those with relatively high salaries. In countries where unemployment benefits were funded partly by government and employer contributions there is a natural suspicion that unemployed workers migrated to the covered sector, thereby inflating the unemployment percentages. As Martine Goossens, Stefaan Peeters and Guido Pepermans show in chapter 8, the numbers covered by Belgium's voluntary system of unemployment insurance rose by over 50 per cent between 1930 and 1933 after having remained relatively stable during the 1920s. While the percentage unemployed recorded by the Belgian insurance system was lower than that in the census of 1930, by 1937 the insured percentage was higher than that in the census. In addition to changes in coverage, changing features of the operation of insurance schemes affected measured unemployment. The effect on public outlays of the simultaneous rise in unemployment and in the number insured led to the imposition of stiffer criteria: in Belgium, for example, this entailed the exclusion of those who had not been working in trade or industry for at least a year. Similarly, under the Anomalies Regulations introduced in Britain in 1931, new conditions restricting benefits available to married women and casual workers effectively excluded many from the system. In Germany, with the advent of the Nazi regime, administrative change and disruption was even more sweeping, as Dan Silverman shows in chapter 5. This creates considerable uncertainty about the proper interpretation of fluctuations in the level of German unemployment in the critical years of the early 1930s.

While statistics pertaining to industrial employment may be invested with a certain amount of authority, the same cannot be said of other sectors where information on unemployment is more fragmentary. Since the Depression centered on industry, and since wage earners were more susceptible to unemployment than salaried workers or the self-employed, series based on the experience of wage earners will tend to overstate unemployment rates among the occupied population as a whole. For the US, for example, Lebergott's estimate of the non-farm unemployment rate for 1930-38 is 40 per cent higher than his estimate for the entire civilian labor force. When the UK unemployment insurance figures are adjusted to a working population basis, the rate for the 1930s falls from 15.4 to 11.7 per cent (Feinstein, 1972, T128, T126). Similarly, according to the 1936 French census, unemployment among wage and salary earners as a whole was 7.5 per cent, while for those in industry it was 11.6 per cent.

In Table 1.2 average industrial unemployment rates are compared with Maddison's (1964) estimates of economy-wide rates. Maddison estimated his series by adjusting to a labor force basis statistics on the registered unemployed compiled by the International Labor Office. The differences are dramatic: the Danish, German, Dutch and Swedish unemployment percentages are more than halved, while those for other countries are substantially reduced. If these economy-wide estimates are to be believed, then unemployment was significantly less severe in Europe than in North America and in Northern Europe than elsewhere. Comparison

**Table 1.2 Average Unemployment Rates 1921-9, 1930-8, 1971-9, 1980-5**

	Galenson and Zellner		Maddison		OECD	
	1921-9	1930-8	1921-9	1930-8	1971-9	1980-5
Australia	8.1	17.8	-	-	4.1	7.6
Belgium	2.4	14.0	1.5	8.7	5.0	12.2
Canada	5.5	18.5	3.5	13.3	6.8	9.9
Denmark	18.7	21.9	4.5	6.6	-	-
France	3.8	10.2	-	-	3.9	8.3
Germany	9.2	21.8	4.0	8.8	2.4	6.4
Netherlands	8.3	24.3	2.4	8.7	3.9	11.1
Norway	16.8	26.6	-	-	1.7	2.5
Sweden	14.2	16.8	3.4	5.6	2.1	2.8
UK	12.0	15.4	6.8	9.8	4.5	10.9
US	7.7	26.1	4.9	18.2	6.2	7.7

Sources: Galenson and Zellner, 1957, pp. 455, 523; Lebergott, 1964, p. 315; Maddison, 1964, p. 220; OECD *Economic Outlook* December 1986, p. 167.

with recent OECD statistics is also striking. For Belgium, the Netherlands and the UK, unemployment in 1980-86 appears to have been even more severe than in 1930-38. Maddison's figures for the 1930s are likely to be too low for several reasons, however. The census benchmarks from which Maddison's series were extrapolated typically failed to adequately enumerate underemployment in agriculture and services, particularly of family members (especially women) on farms and in small businesses and of those on temporary lay-off in industry. Younger workers who had never had a job and older workers for whom retirement was a respectable alternative were similarly underenumerated. Hence actual economy-wide rates probably lie somewhere between the industrial and economy-wide estimates.

The foregoing discussion highlights some of the problems of defining and measuring unemployment in the interwar period. While the shortcomings of these data are evident, it would be a mistake to dismiss them as uninformative. Economic fluctuations in the 1930s were large enough to dominate all but the most dramatic changes in coverage and eligibility. But in countries where industrialization was a relatively recent phenomenon and where there remained a large "traditional" sector, unemployment was even less well defined and even more poorly measured. In Italy, for example, as Gianni Toniolo and Francesco Piva argue in chapter 6, the economy was characterized by a large underdeveloped rural sector where labor was chronically underemployed. Migration to the cities took the form of a gradual transition, during which a significant portion of the workforce obtained only intermittent employment in industry while maintaining ties with the countryside. As a result of this interconnection of industrial and non-industrial sectors, it is particularly difficult to define the industrial labor force. Different assumptions lead to estimates of the industrial unemployment rate for Italy for 1932 which range from 15.5 per cent to 35.2 per cent. Analogous problems arise for Belgium when one attempts to move from statistics on the percentage of insured unemployed to an estimate of the total number of unemployed, as Goossens, Peeters and Pepermans show in chapter 8.

In France, the severity of unemployment and underemployment varied across rural and urban departments. In chapter 7 Robert Salais shows how the extent of the problem varied with the stage of development of local industry and with the nature of labor contracts. One category of worker, described in the French census as engaged in "isolated work," included the semi-employed, those working in their homes and wage earners with irregular jobs. Such individuals typically suffered

from underemployment, but did not describe themselves as unemployed and were not so enumerated. In small-scale businesses where personal contacts between employer and employed remained close, there was typically an "implicit contract," which in times of slack demand led to job sharing which would not be reflected in measured unemployment. In large firms, in contrast, institutional arrangements for production were more formalized and job separations more common. Hence in large-scale industry the distinction between employment and unemployment was sharply defined.

#### **4. Labor Demand and Supply**

Two central questions dominate the literature on the macroeconomics of interwar unemployment. First, why did unemployment reach such unprecedented heights after 1929? Second, why did it remain so high for so long? These questions point inevitably to the issue of how and through what channels aggregate shocks were transmitted to the labor market, and how labor markets adjusted to these disturbances. Central to these issues is the effect of real wages on employment and the effect, in turn, of unemployment on wage adjustment.

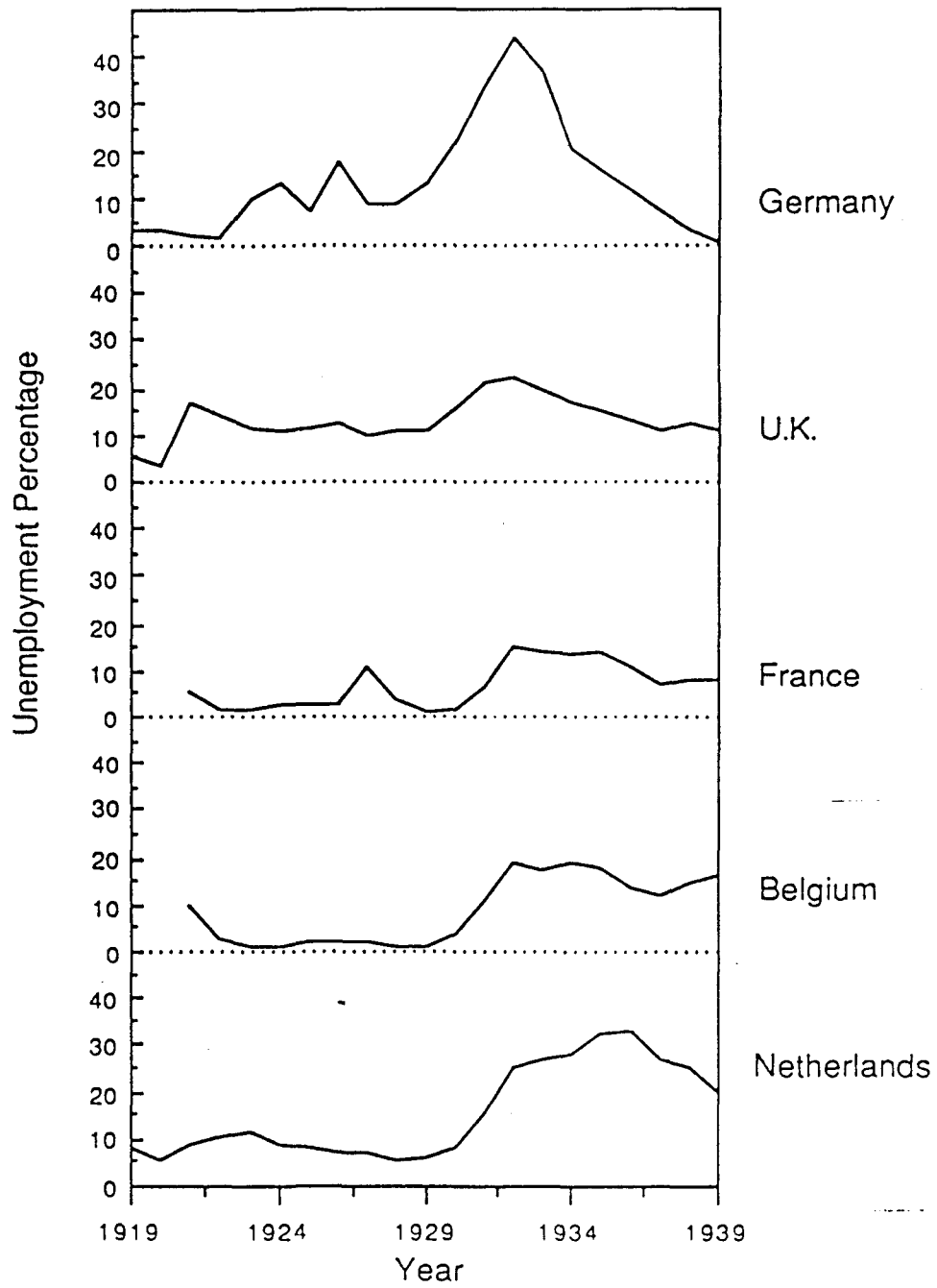
The industrial unemployment rates reviewed above are displayed in Figure 1.1. It is immediately apparent that the time series pattern of unemployment differed greatly across countries. Three or four types of profiles can be distinguished. For the US, Canada and Australia, the pattern is one of stable and relatively low unemployment in the 1920s followed by first deep depression and then strong recovery. In Norway and, to a lesser extent, Sweden and the UK, a distinct cyclical pattern is superimposed on an upward trend spanning the two decades. In France, Belgium and the Netherlands, after remaining steady in the 1920s unemployment rises to persistently higher levels after 1930. The pattern of unemployment in Germany is quite distinct by virtue of the sharp peak and dramatic fall in the 1930s.

Though each country's experience is unique, a number of common features of interwar unemployment are evident, notably the brief recession and recovery of the early 1920s and the sharp rise in the 1930s. These features are usually explained with reference to macroeconomic determinants of aggregate demand in all countries involved. The macroeconomic fluctuations of the early 1920s were associated with recovery from war and, in some cases, with economic upheaval attendant on

Fig 1.1 Industrial Unemployment Rates, 1919-1939



Fig 1.1 (contd.) Industrial Unemployment Rates, 1919-1939





stopping hyperinflation. The reconstruction of international trade and the stabilization of exchange rates conditioned different rates of monetary growth and expansion of output (Eichengreen, 1986a). In the 1930s the story of the origins and international transmission of the Depression is both too familiar and too controversial to warrant retelling here. In the recovery, exchange depreciation and associated monetary policies were principal causes of differences between countries in the extent of recovery (Eichengreen and Sachs, 1985). Domestic policies such as the New Deal in the US are also frequently seen as influencing the course of the upswing. It is not necessary to embrace the importance of one of these macroeconomic factors by dismissing the importance of the others. In Britain, for example, world trade, relative prices, interest rates and tariffs all affected aggregate demand and the pattern of recovery in the 1930s (Hatton, 1986a).

How do such factors find reflection in unemployment? The economist's instinctive reaction is to look to market prices, or in this case to labor costs. The neoclassical approach emphasizing the causal relationship running from labor costs to the level of employment has a long and checkered history. Keynes (1936), it will be recalled, argued that real wages should fluctuate countercyclically. Positing that wages were less flexible than prices, he argued that a business cycle upturn would put upward pressure on prices, reducing real wages, and by cutting real labor costs facilitate the expansion of employment. Analogously, a business cycle downturn would reduce prices, raise the real wage, increase real labor costs and result in a reduction in employment.<sup>6</sup> This drew the attention of contemporaries, notably Dunlop, Tarshis, Richardson and Ruggles, who criticized Keynes's characterization of British experience, although Tarshis was able to demonstrate a negative relationship between monthly employment data and real hourly wages in the US for the period 1932-38.

The debate over the cyclical behavior of real wages continues to this day. Much recent analysis has focused on the case of interwar Britain (see Dimsdale, 1984 and Beenstock and Warburton, 1986). Analyzing the cyclical behavior of real wages for the interwar period raises a multitude of problems, not least those of data. It is important that the price indices used to deflate nominal wages incorporate the price of final output or value-added and not simply input prices. For the interwar years, such measures are less readily available than indices of the cost of living or wholesale prices, which are less appropriate as measures of industrial output prices. Wage rates should properly measure unit labor costs, rather than

weekly earnings or other measures which reflect changes in the level of activity. The available series for five countries are displayed in Table 1.3. With the exception of Germany, real product wages in these countries rise more rapidly in the early 1930s than in the late 1920s. In both Japan and Sweden the initial rise is sharp, although in Japan there is a downward shift in 1931-32. Thereafter real product wages in both countries drift downwards. In the UK and US acceleration in the early 1930s is followed by a sharp rise in the US in 1933-34 which is not paralleled in the UK.

In chapter 2, Andrew Newell and James Symons examine the determinants of employment for fourteen countries for which wage and price proxies are available. An unconventional element of their analysis is the inclusion of the lagged real interest rate. They justify its inclusion as a measure of the cost of variable capital or risk, although an alternative interpretation is that it serves as a proxy for unanticipated fluctuations in aggregate demand. For Europe and Scandinavia but not for the US and UK, they find that the real product wage is negatively associated with employment over the cycle. The contrast among countries is ironic, since many of the proponents of the view that real wages fluctuate countercyclically have focused on the US and UK. Toniolo and Piva examine the same issues using monthly data for ten Italian industries for the period 1928-38. They find a negative relationship between own product real wages and employment even though this did not emerge in the aggregate equation for Italy estimated by Newell and Symons. Industry-level estimates for the UK similarly tend to support the hypothesis of a negative relationship between the product wage and employment (Hatton, 1981).

**Table 1.3** Product Wages (nominal wages relative to manufacturing prices)

	U.K.	U.S.	Germany	Japan	Sweden
1924	91.8	95.0	-	-	-
1925	93.5	90.8	-	-	-
1926	95.3	91.2	-	-	-
1927	97.9	96.7	-	-	-
1928	98.4	97.8	-	-	-
1929	100.0	100.0	100.0	100.0	100.0
1930	103.0	106.1	100.4	115.6	116.6
1931	106.4	113.0	102.2	121.6	129.1
1932	108.3	109.6	96.8	102.9	130.0
1933	109.3	107.9	99.3	101.8	127.9
1934	111.4	115.8	103.0	102.3	119.6
1935	111.3	114.3	105.3	101.6	119.2
1936	110.4	115.9	107.7	99.2	116.0
1937	107.8	121.9	106.5	87.1	101.9
1938	108.6	130.0	107.7	86.3	115.1

*Note:* Manufacturing prices are from Phelps Brown and Brown (1968), except those for Japan from Butlin (1984).

The fluctuation in industrial employment in the 1930s (as distinct from unemployment) is shown in Table 1.4. These series, based on contemporary surveys of industrial establishments, reveal a dramatic fall in employment, to less than two-thirds of 1929 levels in Germany and the US and to less than four-fifths of 1929 levels in Italy and France. While those countries which show the most rapid growth of industrial employment during the recovery tend to be those which suffered the greatest employment loss during the slump, there are substantial variations. Germany experienced a much more dramatic recovery in employment than the US, while Japan enjoyed a much more dramatic recovery than the UK or Sweden. It is tempting to associate these variations with differences in the course of real wages, as shown in Figure 1.2. However, econometric evidence suggests that real wage movements can account for only a portion of international employment variations (Eichengreen and Sachs, 1985).

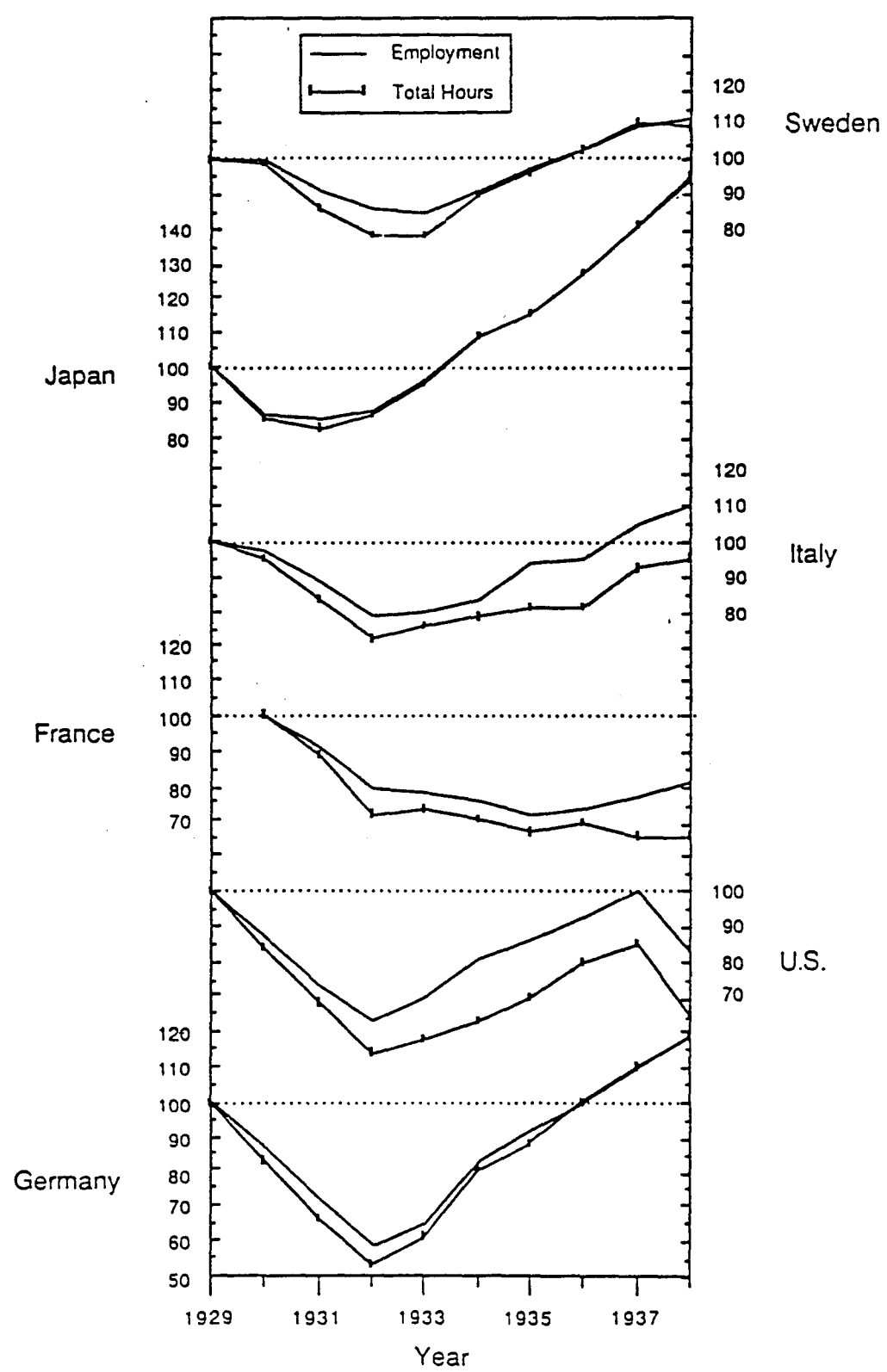
The correspondence between fluctuations in employment and unemployment depends on the extent to which average hours per employed worker adjusted. Given employers' total labor requirements, a fall in hours could minimize the extent of unemployment. Such adjustments might be regarded as a form of job sharing. In Figure 1.2, the dotted line shows a pattern also evident in recent years, namely a more dramatic decline in total employee hours than in employment. This indicates the existence of job sharing in all countries during the Depression, but for which the rise in industrial unemployment would have been even more severe. It also casts doubt on the notion that those remaining in employment during the Depression

**Table 1.4 Hours of Work in Industry, 1929-38**

	Germany (daily)	U.S. (weekly)	France (weekly)	Italy (monthly)	Poland (weekly)	Sweden (weekly)
1929	7.67	48.3	-	182	44.8	-
1930	7.37	43.9	48.0	175	43.9	-
1931	7.08	40.4	46.7	170	43.3	-
1932	6.91	34.8	43.7	168	41.4	-
1933	7.16	36.4	45.3	174	41.5	46.0
1934	7.43	34.7	44.7	172	42.2	47.0
1935	7.41	37.2	44.5	159	42.6	47.4
1936	7.59	39.8	45.7	157	42.7	47.6
1937	7.68	39.2	40.2	163	43.3	47.2
1938	7.75	34.4	38.7	159	43.7	46.3

Source: "Quarterly Statistical Tables", *International Labour Review*, 40, 1939, p. 548-9.

Fig 1.2 Employment and Total Hours in Industry  
1929-38 (1929=100)



prospered due to the increase in real wages, since the rise in real hourly earnings was offset by the fall in hours worked. While one might expect the change in hours to be a transitory phenomenon which would disappear as soon as the severity of the Depression was apparent, the graphs indicate that typically hours did not begin to recover until total employment began to rise in the second half of the 1930s.

There has been relatively little investigation of the changing mix of employment and hours during the Great Depression. In one study of the issue, Bernanke (1985) attempted to explain interwar hours-employee fluctuations as a function of workers' preferences and firms' desire to minimize labor costs. Since firms find it costly to reduce only hours or only workers, the result is a combination of the two. Monthly data for eight US industries for 1923-39 lend empirical support to Bernanke's interpretation. But the reduction in hours appears to have been much more marked in the US than elsewhere. Still, as Table 1.4 shows, in a number of countries average weekly hours in industry seem to have declined permanently at the beginning of the decade. In Italy and France, hours show a sustained decline, while in Germany average hours actually rose slightly between 1929 and 1938. Clearly, institutions as well as preferences mattered for determining the form of reduction of labor input. In the UK, for example, where hours reductions were small and transitory, the unemployment insurance system imposed a fixed employment cost and provided workers with an alternative income which may have shifted the balance in favor of variations in employment (Harrison and Hart, 1985). In the US, the effect of NRA codes may have been, *ceteris paribus*, to induce the substitution of employment for hours. In Germany, by contrast, despite pressure for firms to increase employment and despite the introduction of short-time working in 1933-34, hours increased after 1931.

Labor might be hoarded inside or outside the firm. Outside the firm, labor hoarding could take the form of a reduction in weekly hours or temporary lay-offs and job rotation. Inside the firm, it would be reflected in a cyclical decline in labor productivity. The extent of inside labor hoarding can be estimated from variations in output per employee. In chapter 11, Robert Gregory *et al.* compare the output per worker in Australia and the US over the 1930s, finding that while worker productivity in Australian manufacturing increased marginally, indicating little if any labor hoarding or job sharing, labor productivity in the US fell by a full 15 per cent between 1929 and 1933. If labor hoarding in Australia had matched

that in the US, Australian unemployment would have peaked at about 12 per cent rather than the 19 per cent observed in 1932. Such differences are most readily explained in terms of institutional and historical influences. With a centralized bargaining structure, strong unions and one of the shortest working weeks among industrial countries, there was strong resistance in Australia to proposals for further reductions in weekly hours. In the US, in contrast, the working week had remained at forty-eight hours and, with strong official encouragement under the New Deal, the opportunity was seized to permanently reduce it.

Equally important for understanding the extent as well as the nature of unemployment during the Depression is the behavior of the labor supply and labor force participation. Fluctuations in the labor force have implications for the construction of unemployment rates as well as for the interpretation of household responses to the Depression. Generally the only available measures of the total labor force come from census benchmarks, which are too far apart to convey much information about cyclical variations. The implication of ignoring these variations is demonstrated in Romer's (1986) revisions of Lebergott's estimates of US unemployment in the 1920s. Instead of assuming a steady secular change in participation rates between censuses, Romer imposes the postwar pattern of procyclical fluctuation in participation on the interwar data, significantly altering Lebergott's estimates of year-to-year variations in unemployment.

Many families repented to the unemployment of the principal breadwinner by sending other family members to work.<sup>7</sup> University students, finding themselves unable to afford continued education, sought full-time work instead. Married women entered the labor force in growing numbers, their share of American female labor participation rising from 29 to 35 per cent between 1930 and 1940. Using data for Boston and Detroit gathered in the winter of 1935-36, Woytinsky (1942) calculated that, for families with two adults in the household, the probability of the second adult participating in the labor market was 25 per cent higher when the head was unemployed than when he was employed. Similarly, the percentage of third adults who participated rose from 47 to 61 per cent in Detroit and from 57 to 66 per cent in Boston as the labor market status of the family head changed from employed to unemployed.

Female participation was widely blamed for male unemployment. As Norman Cousins wrote in 1939,

There are approximately 10,000,000 people out of work in the United States today ... there are also 10,000,000 or more women, married and single, who are jobholders. Simply fire the women, who shouldn't be working anyway, and hire the men. Presto! No unemployment. No relief rolls. No depression.

The belief that the entry of new workers was adding to the difficulties men experienced in finding employment led to the passage of legislation restricting the employment of married women. The 1932 US Federal Economy Act stipulated that, in the event of personnel reductions, married employees should be fired first when the spouse also held a government job; typically the wife was the one affected. A similar Austrian law stipulated that the wife was the one to be let go (Garraty, 1986, p. 256).

As a result of these conflicting influences, the net effect of the Depression on labor force participation is difficult to discern. For the US, Woytinsky (1942) originally argued that the number of added workers, particularly women, dominated the number of discouraged workers, thereby exacerbating the unemployment problem of the 1930s. But subsequent investigations comparing the interwar period with long-run trends in census participation rates suggest that the discouraged worker effect was predominant in the US, the UK and Canada while the added worker effect predominated only in Germany (Long, 1958). All such estimates assume, however, that the secular trend in labor force participation rates between 1910 and 1950 was linear. The only way to relax this assumption is to employ cross-section data. One recent study of female participation across British towns in 1931 finds little evidence that the net discouraged worker effect predominated (Hatton, 1986b). Robert Margo, in his analysis of US experience in chapter 10, similarly concludes in favor of a powerful added worker effect. Using data for individual households from the 1940 census he finds that, where the husband was an experienced worker but unemployed, the wife was 59 per cent more likely to be in the labor force than if the husband held a full-time job. Wives were also likely to work if the husband was out of the labor force or held a part-time job. Though such estimates fail to capture the discouraged worker effect and therefore the net impact of unemployment, the strength of the added worker effect alone suggests it may be a mistake to assume that the discouraged worker effect predominated in the 1930s.

## 5. Unemployment and Labor Market Adjustment

The persistence of unemployment in the 1930s raises questions about the strength of self-equilibrating mechanisms in the labor market. Perhaps the most popular question is whether the interwar years were characterized by a high degree of wage rigidity. In Table 1.5 series for nominal hourly earnings in the industrial sector are displayed for fifteen countries. These data suggest that it is wage behavior not so much in the recession as in the subsequent recovery that is difficult to explain. Whatever the degree of nominal wage rigidity, hourly earnings fell in most countries, and fell very sharply in some. Earnings tended to fall most sharply where the slump was most severe. In the US and Australia they fell by nearly 20 per cent by 1933; in Germany they fell by even more. But there are exceptions to this rule. Japanese earnings fell more sharply than those in the US, UK or Sweden, countries whose recessions were of comparable severity. In France and Denmark, nominal hourly earnings did not fall at all. Turning from slump to recovery, between 1932 and 1935-36 earnings remained fairly constant in almost all countries despite continuing high unemployment. This was then followed, until 1937-38, by sharp increases in wages averaging 10 per cent. This way inflation persisted despite that unemployment had not yet returned to the lower levels of the 1920s. Overall, the time profile of money wages is "U"-shaped and inversely related to the bulge in unemployment.<sup>9</sup>

Table 1.5 Nominal Hourly Earnings in Mines, Industries and Transport in 15 Countries 1929-38

	Germ- any	Austr- alia	Belg- ium	Can- ada	Den- mark	USA	France (Paris)	UK	Italy	Japan	Nor- way	Neth- erland	Poland	Swe- den	Switz- erland
1929	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1930	97	98	108	101	102	100	106	100	99	95	100	102	99	103	101
1931	90	89	101	96	102	96	105	98	93	87	96	100	92	103	102
1932	75	84	92	91	102	84	100	96	91	85	98	93	85	101	98
1933	73	81	90	86	102	83	102	95	89	86	96	89	77	98	97
1934	75	82	86	87	103	98	102	96	86	88	97	86	73	98	94
1935	76	83	82	89	104	102	101	97	85	88	97	83	71	99	92
1936	77	85	88	91	103	104	116	100	90	88	100	81	70	100	90
1937	79	89	99	98	105	117	173	104	101	93	107	82	73	103	89
1938	82	96	105	102	111	121	192	107	108	102	118	86	77	109	93

Notes: Hourly earnings except for Canada and Australia (hourly rates), UK (weekly rates), Japan and Norway (daily earnings).

Source: *International Labour Review* 40 (1939), pp. 552-565.



Any attempt to explain the behavior of money wages in the 1920s and 1930s must start with the effect of the First World War. In a number of countries the effect of the war and the postwar inflation was to tie wage rates more closely to the cost of living. The result was an increasing degree of real (consumption) wage rigidity. Yet, despite this fact, data for nominal hourly earnings divided by the cost of living index (Table 1.6) show that in all countries except Germany the real consumer wage rose sharply between 1929 and 1933. The uniformity of the rise is striking. In Australia, where centralized wage setting under the arbitration system linked wage rates directly to the cost of living, because of the lag between wages and prices built into the system, the consumption wage rose during 1929 to 1933 as prices fell. As Gregory *et al.* show in chapter 11, this gave rise to real wage behavior remarkably similar to that in the US, where no such institutional structure existed.

In the recovery, in contrast, real wage trends among countries were more diverse, reflecting innovative wage policies pursued by national governments.<sup>10</sup> In the US, the impact of NRA codes is evident in the jump in hourly earnings in 1933-34. It has been estimated that the NRA codes raised nominal wages by 26 per cent and real wages by 14 per cent over the two-year period of their operation (Weinstein, 1978).<sup>11</sup> In France, the policies of the Blum government are evident in the sharp rise of 1936-37. In contrast, policies aimed at cutting or holding down wages met with mixed success. In Germany, on the one hand, the minimum wage was held at the nominal rate established in 1933, and voluntary payments above minimum rates were effectively prohibited (Bry, 1960, p. 236). In Australia, on the other hand, the federal court decision to cut the basic wage by 10 per cent in 1931 was not followed to any significant extent and appears to have had little effect on wages actually paid.

Table 1.6 Real Hourly Earnings in Mines, Industries and Transport in 15 Countries 1929-38

	Germany	Austr- alia	Belg- ium	Can- ada	Den- mark	USA	France	UK	Italy	Japan	Nor- way	Neth- erland	Poland	Swe- den	Switz erland
1929	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1930	101	103	104	101	107	103	101	104	102	110	104	106	108	106	103
1931	102	105	109	108	114	110	103	109	107	116	104	111	112	109	109
1932	96	104	111	111	114	108	106	110	110	113	109	111	114	110	114
1933	95	104	109	111	111	111	109	112	112	108	109	107	115	108	119
1934	95	103	108	111	107	124	110	111	114	107	108	103	118	107	117
1935	95	102	103	113	105	123	116	111	111	105	106	103	119	107	116
1936	96	103	104	113	103	123	127	111	109	100	107	101	122	107	111
1937	99	105	108	118	102	133	155	110	111	97	107	104	119	108	105
1938	100	110	112	121	105	140	153	113	110	93	114	102	127	112	109

Source: As for Table 1.2.

This diversity of experience renders generalizations about interwar wage behavior rather difficult. In chapter 2, Newell and Symons estimate a real wage equation for fourteen countries covering the period 1923-38. They find movements in the real wage to have been highly persistent. Real wages are negatively related to the cost of living, particularly in Europe, suggesting incomplete indexation of wages to short-run price changes. Surprisingly, however, nominal inertia appears to have been relatively weak in the UK, the US, and Scandinavia. The tendency of unemployment to depress wage rates appears to have been weak, although except in the UK unemployment had a small negative effect on real wages with a one-year lag

Why did wages fail to adjust downward adequately in the face of deflationary nominal shocks? The Keynesian approach emphasizes nominal inertia in labor markets. Because of convention, contracts, and the importance workers attach to relative earnings (both over time and across individuals), nominal wages are slow to adjust. Thus, the decline in nominal income at the outset of the Depression raised real wages and reduced labor demand, increasing unemployment. *The General Theory* raises questions about whether a reduction in money wages would have been sufficient to reduce unemployment in a closed economy (equivalently, in the world economy as a whole). But there is no question that, in the Keynesian framework, an open economy could increase its competitiveness, raising its output and reducing its unemployment, by lowering its labor costs relative to its trading partners. Interwar evidence makes clear that those countries which succeeded in limiting the rise in real wages after 1929, usually through a combination of currency devaluation and expansionary monetary policy, recovered most quickly from the Great Depression (Eichengreen and Sachs, 1985).

In contrast to the Keynesian model, the classical approach emphasizes not inertial money wages but unanticipated nominal shocks. As in Lucas and Rapping (1969), the labor market is, with a single notable exception, assumed to be at the intersection of the labor supply and labor demand curves. That exception is unanticipated shocks which displace workers from their labor supply curves, leaving employment to be demand-determined. In the Great Depression, for example, to some extent deflation took workers by surprise; workers having demanded money wages that turned out to be above market-clearing levels, the economy ended up with high real wages and high unemployment. As soon as they recognized that deflation was underway, workers reduced their wage demands, restoring the labor market to equilibrium. Applying this model to the US experience, Lucas and

Rapping find that it nicely tracks the rise in unemployment after 1929. The problem is that it predicts a rapid fall in unemployment as soon as deflation was halted. Thus, the market-clearing-cum-surprises approach fails to provide a full explanation for American unemployment in the 1930s. This has not prevented subsequent investigators from attempting to apply it to other countries.

It was partly the failure of these models that led advocates of the market-clearing approach to emphasize the role of relief programs and unemployment benefits. Darby (1976) argued that those employed on work relief in the US should not be counted as unemployed and that the true unemployment rate in the later 1930s was therefore lower than it appears. Removing relief workers from the numbers unemployed improves the performance of the Lucas-Rapping model but still leaves implausibly long adjustment lags. Furthermore, Darby's central premise has been questioned on the grounds that workers regarded relief as a poor substitute for regular employment (Kesselman and Savin, 1978). In chapter 9, Margo brings microeconomic evidence to bear on this issue, finding some evidence that those on work relief had longer incomplete unemployment spells than other persons out of regular work, thus providing qualified support for the Darby view. At the same time, Margo finds that many of the characteristics associated with low re-employment probabilities were shared by both relief workers and the wholly unemployed, a finding difficult to reconcile with Darby's thesis.

In most other countries, work relief was not nearly as prevalent, but the persistence of unemployment was almost as great. In Canada and Australia, for example, national programs of sustenance payments were considerably less comprehensive than under the New Deal. But in several countries, most prominently Britain and Belgium, a large proportion of the unemployed was supported by doles or unemployment insurance payments. There has long been a suspicion that by subsidizing search and leisure, this reduced the competition for jobs and therefore mitigated the downward pressure on wages. Interwar observers as disparate as John Maynard Keynes and Jacques Rueff acknowledged this possibility but differed in the weight they attached to it. The appeal of this notion to those inclined towards the market-clearing approach is that the wedge between the wage employers can afford to pay and the wage workers demand is nothing but a distortion imposed upon the labor market by government. It thus becomes possible to reconcile the premise that the labor market had a strong tendency to adjust with the observation of persistent unemployment. In a well-known article, Benjamin and Kochin argued that in Britain

"the army of the unemployed standing watch at the publication of the *General Theory* was largely a volunteer army" (1979, p. 474). Such claims rest on the observation of relatively high rates of benefit relative to wages. However, they are difficult to reconcile with the broad facts of differences across time or between countries. For example, Goossens, Peeters and Pepermans show in chapter 8 that unemployment in the 1930s increased much more rapidly in Belgium than in Britain despite cuts in rates of benefit and increasingly stringent qualification requirements.

The strong inferences drawn from highly aggregated data also fly in the face of qualitative evidence, notably graphic personal accounts of widespread involuntary unemployment. Eighteen annual observations of the economy-wide unemployment rate are far removed from the household level where search and labor-force participation decisions were made. But as yet, little progress has been made at getting closer to the decision-making level. Eichengreen (1986b), however, has analyzed a sample of several thousand London households in the period 1929-31, concluding that unemployment benefits had no impact on the probability of unemployment among household heads but that it may have had a significant impact among secondary workers. While this finding raises questions about the benefit-induced-unemployment explanation, until more disaggregated studies have been done the jury will remain out.

A striking feature of the 1930s illustrated in a number of studies in this volume is the dramatic rise in long-term unemployment. In a recent study of Britain in the 1930s, Crafts (1986) found that the responsiveness of wages to unemployment is more readily identified when long-term unemployment is entered as a separate term. Crafts' estimates suggest that the long-term unemployed exert little downward pressure on wages, thereby helping to explain the stability of wages in the face of persistent unemployment. The question is why the long-term unemployed were unable to bid down wages and regain employment. One possibility is duration dependence: that the probability of leaving unemployment fell as the duration of the unemployment spell in progress rose. It is often argued that long-duration unemployment reduced employability by eroding motivation and skills, engendering fatalistic attitudes and leading to loss of morale. Employers may have viewed a history of long-term unemployment as a signal of undesirable employee characteristics. Such factors lend themselves to exaggeration, however. With the advent of the Second World War, virtually all unemployment, including long-term,

quickly melted away. Most workers were clearly employable at some wage even after a protracted period of unemployment.

Recently attention has turned to the structure of wage bargaining between individual firms or employers' associations and trade unions. The growth of unionism and the increased scope and formalism of collective bargaining was common to many countries from the turn of the century to the 1920s. In models of union-firm bargaining the union is endowed with a set of preferences between wages and employment. The wage-employment outcome depends on these preferences, the firm's demand for labor, and the structure of the bargain between the union and firm (McDonald and Solow, 1981). If the union places little weight on unemployment among its members then adverse shifts in labor demand will have little effect on the wage. One recent suggestion is that there is an important distinction to be made between "insiders" in employment and unemployed "outsiders". Those with long-term attachments could exert pressure on the firm not to hire outsiders and make it costly to do so, and as a result outsiders would not be hired even at lower wages. The atrophy of skills among the long-term unemployed may serve to reinforce the distinction between insiders and outsiders (Blanchard and Summers, 1986). In this interpretation the impact of large negative shocks to labor demand could dislodge some proportion of insiders, causing them to become outsiders.

The data for union density over the 1930s depicted in Table 1.7 show that membership typically followed the course of employment, which is at least consistent with the insider-outsider explanation. Also consistent is the limited concern union leaders evinced for the unemployed.

Union officials everywhere claimed to be deeply concerned about the fate of the jobless and there is no reason to doubt their sincerity. However, the fact remains that their first concern was nearly always for their own constituents. Since unemployed members tended to drop out of unions -- because of a conflict of interest between workers and the unemployed -- this meant unions reflected the attitudes of those with jobs. With only a handful of exceptions unions rejected work sharing as a means of coping with unemployment (Garraty, 1978, p. 191).

Contemporary writers stressed the importance of the institutional framework for wage bargaining. Some, such as Cannan, Clay, Hicks and Pigou, argued that in Britain the bargaining position of unions had been strengthened by the adoption of labor legislation, minimum wage provisions and unemployment insurance benefits,

**Table 1.7 Aggregate Union Density: Six Countries (percentages)**

	Australia	Canada	Germany	Sweden	U.K.	U.S.
1924	39.6	8.4	31.8	27.6	30.6	10.7
1925	42.1	8.6	29.0	28.7	30.1	10.4
1926	44.6	8.6	27.6	29.9	28.3	10.2
1927	46.8	8.9	29.6	30.6	26.4	10.1
1928	46.2	8.9	32.5	32.0	25.6	9.6
1929	45.7	9.3	33.9	33.8	25.7	9.3
1930	43.5	9.2	33.7	36.0	25.4	8.9
1931	38.7	8.8	31.5	37.7	24.0	8.6
1932	36.0	8.1	38.1	-	3.0	7.9
1933	34.9	7.9	-	7.9	2.6	7.3
1934	35.3	7.9	-	38.6	23.5	8.9
1935	36.1	7.8	-	40.7	24.9	9.1
1936	37.1	8.8	-	44.1	26.9	9.8
1937	38.5	10.1	-	48.2	29.6	13.6
1938	38.8	10.1	-	51.0	30.5	14.0

*Source: Bain and Price (1978).*

enabling them to resist wage cuts in the mid-1920s and leading to abnormally high unemployment.<sup>12</sup> Recent efforts to capture these arguments econometrically have met with some success, although it has proved difficult to isolate the effects of different variables precisely (Broadberry, 1986; Matthews, 1987; Hatton, 1987). Even more telling, when looking across countries it is difficult to identify which institution structures were most conducive to wage flexibility. The wage-setting system in Australia was viewed with approbation by many observers, who thought it provided smooth wage adjustment which more decentralized systems could not deliver (Reddaway, 1938). In cross-country comparisons, it has been argued that centralized wage setting leads to greater responsiveness of the real wage to employment by limiting the power of insiders to set the wage without reference to unemployment (Newell and Symons, 1987). Though evidence for five countries in the postwar period seems broadly consistent with this view, it is less obvious that such distinctions can be sustained for the interwar period.

## 6. The Incidence of Unemployment

One of the leading features of interwar unemployment is its uneven incidence. Unemployment was much higher in some industries and areas than in others in both the 1920s and 1930s. In most countries, recorded unemployment rates were higher for men than for women and for older workers than for the young. But while frequently noted, unemployment incidence has received little systematic study. Many of the contributions to this volume accordingly focus on the questions of who was unemployed.

The interwar period in Europe is sometimes seen as a period of readjustment arising from the dislocation caused by the First World War, and from the changing balance of production and trade within and between countries in the 1920s (see Svernilson, 1954). This readjustment was supposedly still incomplete in 1929, exacerbating the Depression and rendering recovery all the more difficult.<sup>13</sup> Whatever its relation to the ongoing process of structural change, the effects of the Depression certainly varied widely across industries. As already noted, the Depression was most intense in the industrial sectors of developed countries. In France, where between 1929 and 1933 real GDP fell by just 3 per cent, industrial production fell by nearly 20 per cent. In Germany, an 8 per cent fall in GDP was accompanied by a drop of over 30 per cent in industrial production. In Australia, a small decrease in GDP was associated with a decline of nearly 20 per cent in the volume of manufacturing output. In the US, where real GNP fell by an alarming 25 per cent, manufacturing production declined by a still more alarming 40 per cent.

It has been argued that an increased dispersion of unemployment rates reflects structural dislocation across regions or industries which leads to higher equilibrium levels of unemployment. Such theories of "mismatch" unemployment have been advanced to explain trends and cycles in post-war unemployment (Lilien, 1982). The direction of causation is far from clear, however. In the early 1930s, the rising dispersion of unemployment rates reflects the uneven impact of the Depression on different sectors. It would be necessary to control for the uneven incidence of the macroeconomic shock before arguing that structural factors were an independent cause of the rise in aggregate unemployment. In the later 1930s, it is possible that persistent imbalances impeded recovery. One recent study of Britain in the 1930s (Hatton, 1986c) shows that some industrial and regional unemployment rates were more cyclically sensitive than others. Those which rose most in the Depression fell most in the recovery, reflecting the uneven incidence of the contraction and expansion.

The reallocation across regions of labor and other factors of production was slow and painful. The mythology of the 1930s depicts the unemployed travelling from state to state or region to region in a desperate and largely fruitless search for work. Such mobility, however evocative, was wholly inadequate to equalize unemployment rates in different areas. Rather, it was largely the recovery itself that regenerated employment opportunities in unemployment black spots. Though the industrial dispersion of unemployment rates rose nearly everywhere (see Table

1.8), the differential impact upon regions was much more marked in some countries than others. A classic example of differing regional impacts is the UK, where the Depression widened the gap between the high unemployment North and the low unemployment South. While associated with different industrial structures and particularly with the concentration of the ailing staple industries in the North, these factors alone cannot adequately account for the observed differences in unemployment rates. Regional unemployment differentials remain even after controlling for industry mix (Hatton, 1986c). In Germany, in contrast, the regional incidence of unemployment was surprisingly even despite the depth of the Depression. In September 1930, when the national unemployment rate had already reached 18.8 per cent, regional rates ranged only from 15 to 22 per cent (James, 1986, p. 113).

The costs of the Depression in North America are often perceived to have been unevenly borne as a result of regional specialization. The Depression's uneven regional incidence might be thought to be especially pronounced in Canada, where the composition of economic activity varied so greatly between Montreal and Toronto on the one hand and the Prairies on the other. But, as Alan Green and Mary MacKinnon argue in chapter 10, the increase in dispersion of unemployment rates was not as great as might have been expected from the fall in income across

**Table 1.8 Standard Deviation of Industrial Unemployment Rates**

	Australia	Belgium	Denmark	Netherlands
1929	3.04	3.80	6.00	5.34
1931	7.05	10.13	6.16	20.99
1933	8.08	8.42	11.66	17.27
1935	6.60	5.38	7.94	15.85
1937	4.64	6.77	9.72	12.37
	Norway	Sweden	U.K.	U.S.
1929	6.25	7.95	6.11	6.31
1931	13.13	11.46	11.71	12.12
1933	16.67	17.33	11.00	13.87
1935	13.24	11.03	7.87	11.53
1937	11.80	9.03	5.78	11.51

*Source:* Calculated from LL.O. *Yearbook of Labour Statistics*, 1948.



provinces. Green and MacKinnon also show that the ratio of rates in high and low unemployment regions was no greater than in 1951 or 1981. Similarly, as Gregory *et al.* show in chapter 11 for Australian Local Government Areas between 1921 and 1933, while the low unemployment areas show a rise of less than 8 percentage points and high unemployment areas show an increase of nearly 20 percentage points, the ratio rises only from 2.5 to 3. Such results are quite general: while the absolute gap in unemployment rates widened (as illustrated in Table 1.8), relative rates in most countries diverged to a considerably lesser extent.

Another widespread regularity is that unemployment rates were typically lower among women than men. The UK unemployment insurance statistics consistently show the unemployment rate to have been 50 per cent higher for males than females. While some of this differential may reflect the underreporting of unemployment among women, the more comprehensive measure provided by the 1931 census displays the same relationship (14.7 per cent of male workers unemployed and 9.4 per cent of females). The lower unemployment rates of women largely reflect the different occupational structure of women's employment, which was weighted towards low unemployment industries and occupations (Beveridge, 1936). Similar patterns can be found in census data for other countries. In Canada, for example, a large proportion of women worked in clerical, sales and service jobs which were typically characterized by a relatively low incidence of unemployment. In these occupations, unemployment rates were roughly the same for men as for women (Green and MacKinnon, this volume). But as a result of their concentration in such occupations, women suffered less job loss than men. However, one group suffered more than the rest, namely married women. In the UK the rate of unemployment among married women reported in the 1931 census was 17.2 per cent, compared with 6.9 per cent for single women.<sup>14</sup>

The same sources indicate that unemployment was disproportionately borne by the relatively old (those over 55) and relatively young (those in the 21- to 25-year-old age group). This is illustrated in the census data for six countries given in Table 1.9. In Australia, where the census was taken well into the Depression, the "U"-shaped age profile of unemployment rates among men is clearest. Among women, in contrast, there is a tendency for unemployment rates to continue to decline with age, perhaps reflecting the withdrawal of older women from the workforce. In both Canada and the UK there is a well-defined "U"-shaped pattern for both sexes in 1931. In the US, the pattern is just perceptible in 1930, but by

Table 1.9 Unemployment Rates by Age: Six Countries

Age group	Australia (1933)		Belgium (1937)		Canada (1931)		U.K. (1931)		U.S. (1930)		U.S. (1940)		France (1936)	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
15-19	20.1	17.0	8.1	3.2	21.6	10.7	9.0	7.2	8.1	6.2	22.6	21.6	5.0	4.3
20-24	25.5	15.2	12.0	3.2	22.6	8.5	15.2	12.0	8.8	4.7	17.8	12.5	4.8	4.2
25-29	21.2	11.7	11.5	2.8	20.7	7.6	13.6	10.4	6.9	4.4	13.1	8.7	4.9	3.5
30-34	17.4	10.5	12.2	2.7	-	-	12.6	10.9	6.1	4.3	11.5	8.2	4.7	3.1
35-39	16.3	10.4	12.6	3.2	18.4	7.9	13.0	10.5	6.2	4.4	11.4	9.6	4.8	3.1
40-44	15.8	9.0	13.8	4.5	-	-	-	-	6.5	4.3	-	-	5.0	3.2
45-49	16.8	8.8	16.6	5.9	20.8	8.7	15.9	11.1	6.9	4.3	12.9	10.9	5.1	3.3
50-54	17.8	8.0	21.2	8.5	-	-	-	-	7.0	4.2	-	-	5.7	3.4
55-59	18.7	7.0	29.6	12.8	23.2	9.2	20.1	12.2	7.3	4.2	15.0	12.1	6.4	3.5
60-64	20.8	3.0	40.1	16.1	-	-	25.9	13.8	7.3	3.9	15.2	11.7	4.4	2.3
65-69	9.5	1.2	12.1	2.4	27.3	9.7	32.0	11.7	6.5	3.2	10.0	7.0	3.0	1.6
70+	3.1	-	-	-	26.2	6.5	25.5	8.6	-	-	-	-	-	-

Notes: For Britain, England and Wales only: for the lowest age group Canada, 14-19, Britain 14-20, U.S. (1930) 10-19, U.S. (1940) 14-19; for the next oldest group Britain 21-24; figures for the U.S. (1940) exclude new workers but include unpaid family workers.

Sources: Australia, Canada, Britain: Census Reports; Belgium from Goosens, Peeters and Pepermans (this volume); U.S. 1930 from Woytinsky (1942, p. 154); France from Salais (this volume); U.S. 1940, from Census 5% sample.

1940 the "U"-shaped age distribution is much more pronounced. This suggests that the persistence of high unemployment tended to accentuate differences among age groups. Woytinsky (1942) attributed this pattern to the inclination of firms to lay off their least productive workers, namely the inexperienced and those whose efficiency had begun to decline with age, and also to the tendency for unemployment to be borne disproportionately by recent entrants to the labor market. Since women entered the labor market at a variety of ages, in contrast to men who uniformly entered when young, the "U"-shaped age distribution was less pronounced for females.

In Belgium the pattern for both sexes is relatively flat up to the 35-39 age group but then shows a sharp rise for both sexes up to age 60-64. The picture in France is rather different. Unemployment rates rise with age for both sexes up to age 55-59. This disguises different patterns in urban and rural areas, however. According to data summarized by Asselin (1966), while Parisian unemployment displayed the familiar "U"-shaped age distribution, elsewhere unemployment rates fell steadily with age rather than rising among workers in their fifties and sixties. It appears that in advanced industrial areas the usual pattern emerges, but elsewhere

the economy's rural character better enabled young and old to escape unemployment. This adds a further dimension to the distinctions between industrial and non-industrial regions identified by Salais in chapter 7.

A striking difference between unemployment in the 1930s and the 1980s is the very different relationship between the levels of unemployment among youths and adults. While youth unemployment rates currently exceed unemployment rates for adults throughout the OECD, this was not uniformly the case in the interwar years. In part this difference may be a statistical artifact: since unemployed youths qualified for support under relatively few social programs and hence had little incentive to make their status known to the authorities, youth unemployment tends to be underreported to an even greater extent than unemployment among adults.<sup>15</sup> Since these programs were less advanced between the wars, the incentive for youths to register as unemployed may have been even less and the extent of underreporting even greater. Though census reports went some way to eliminating this problem, in some countries such as Canada those who had left school but had never found work were not classified as wage earners in the census. The figures in Table 1.9 suggest that unemployment rates were generally lower for males in the 15- to 19-year-old age group but not for females.

Perhaps most striking in this respect is Britain, where recorded unemployment for juveniles was exceptionally low. Eichengreen (1987) has attempted to decompose the rise in British juvenile unemployment between the 1930s and 1980s. One can dismiss out of hand a number of potentially attractive hypotheses (changes in macroeconomic conditions, demographic effects and changes in the propensity to leave school). The important effects turn out to be a recording effect (confirming that juvenile unemployment was systematically underenumerated), a relatively small shift in the composition of activity from sectors employing a large share of juveniles in their workforces to sectors where the juvenile share is small, and a large economy-wide shift in the share of juveniles in total employment. The reason for this shift in the age composition of employment does not appear to be any pronounced change in the relative wages of juveniles and adults or in their relative unemployment benefits. Rather, the reason seems to be that youth unemployment has grown increasingly sensitive to macroeconomic fluctuations. Whereas in the 1970s and 1980s youth unemployment has been highly sensitive to business cycle conditions, in the 1920s and 1930s youth unemployment did not exhibit this cyclical sensitivity. Since 1960 the elasticity of youth unemployment with respect to adult

unemployment has been considerably in excess of unity; comparable elasticities for the interwar period are unity or even less. The difference points to the possibility that youths experienced exceptionally short unemployment spells and that labor-market conventions, such as inverse-seniority lay-off rules, played a very different role during the interwar years.

Census and unemployment insurance data indicate that the burden of unemployment was shared unequally in other respects as well. The bulk of unemployment fell on unskilled manual workers. In Canada, for instance, the unskilled accounted in 1930-31 for 56 per cent of male wage and salary earners who lost jobs, 39 per cent of individuals laid off and 51 per cent of total weeks lost (Marsh, 1940, pp. 328, 355). As Green and MacKinnon show in chapter 10, recent immigrants tended to suffer more unemployment than the native-born, a differential particularly marked among those from non-English-speaking backgrounds. For the US, Woytinsky (1942) found for males that the incidence of unemployment was lower among household heads and individuals living alone than for related family members. Unemployment among women differed in that rates were higher among family heads and those living alone, and higher among the married, widowed and divorced than among the single, in these respects resembling female unemployment in Britain.

Unemployment was typically related to a range of variables reflecting individual characteristics, labor market conditions, demographic factors and household status. Among adult males it fell on individuals with low wages and few sources of income beyond their own wages and unemployment benefits, who rented their homes and who had large families. Although interwar analyses presented these regularities as simple tabulations, recent work done by one of the present authors (Eichengreen, 1986c) confirms that they emerge also from multivariate analysis of the correlates of unemployment. In a complementary study of the US, Margo shows in chapter 9 that in 1940 the risk of unemployment was negatively related to years of schooling, positively related to wealth, but essentially unrelated to nativity once other factors are controlled for. However, all three variables as well as marital status affected the probability of obtaining a relief job for individuals not in regular employment. Such findings point to an important conclusion familiar from the 1980s: that the burden of unemployment fell most heavily on those who were least able to support it.

## 7. Labor Turnover and Unemployment Duration

Another perspective on the problem is provided by the dynamics of flows into and out of unemployment. While some writers focused on these aspects during the interwar period itself, until recently this has remained a neglected topic.<sup>16</sup> The overall level of unemployment can be decomposed into rates of flow into and out of the unemployed pool and the average duration of spells on the register. Unemployment can increase through a rise in the rate at which workers enter and leave the register, or through an increase in average duration of an unemployment spell at constant rates of flow. Thus a given rate of unemployment may be characterized by high turnover and low duration or by precisely the opposite. Such differences may also characterize the experience of different groups of workers at a point in time.

Attention has been drawn recently to high rates of employment turnover in US manufacturing during the interwar years (Baily, 1983). The first part of Table 1.10 shows that monthly accessions to employment averaged nearly 5 per cent in the 1930s. The Depression of the 1930s does not seem to have been accompanied by a dramatic fall in the rate of flow. Rather, it was characterized by a rise in layoffs and a fall in voluntary leaving (quits). While quits were the dominant form of separation in the 1920s, in the 1930s layoffs dominated instead. Although comparable data are not available for other countries, for the UK there is information on vacancies notified and filled by labor exchanges. The second part of Table 1.10 shows that these grew at a more or less constant rate over the 1920s and 1930s, reinforcing the point that the Depression was not characterized by a decline in the rate of flow into employment. Turnover rates for the insured labor force in 1932-38 indicate that annual flows into employment amount to a strikingly high 50-60 per cent of the labor force. This monthly flow of 4-5 per cent is remarkably similar to employment turnover in the US. Thus, all the evidence points to the conclusion that labor turnover in the interwar years was significantly higher than after the Second World War.<sup>17</sup>

It could be argued that high turnover rates render the search characterization of the labor market appropriate for the 1920s if not the 1930s. But one recent study estimating a search-turnover model of the relationship between unemployment and vacancies for the UK in the 1920s found no support for the model (Hatton, 1985). Shifts in the relationship of unemployment to vacancies do not appear to

Table 1.10 Labour Turnover in the U.S. and U.K.

	Employment turnover in the U.S. (average monthly rates)			Annual flows in the U.K.		
	Accessions	Lay-offs	Quits	Vacancies		Labour force turnover
				notified (millions)	filled (millions)	
1924	3.3	0.6	2.7	1.37	1.16	-
1925	5.2	0.4	3.1	1.51	1.31	-
1926	4.5	0.5	2.9	1.32	1.16	-
1927	3.3	0.7	2.1	1.46	1.27	-
1928	3.7	0.5	2.2	1.54	1.35	-
1929	5.1	0.4	3.0	1.86	1.63	-
1930	3.8	3.6	1.9	1.97	1.76	-
1931	3.7	3.5	1.1	2.16	1.99	-
1932	4.1	4.2	0.9	2.04	1.88	0.54
1933	6.5	3.2	1.1	2.46	2.22	0.59
1934	5.7	3.7	1.1	2.66	2.33	0.57
1935	5.1	3.0	1.1	2.93	2.53	0.61
1936	5.3	2.4	1.3	3.13	2.65	0.52
1937	4.3	3.5	1.5	3.17	2.65	0.52
1938	4.7	3.9	0.8	3.19	2.74	0.54

Sources: U.S.: Baily (1983), p. 29; U.K.: 22nd Abstract of Labor Statistics (and authors' calculations).

have responded to wage surprises or the benefit-to-wage-ratio. There was a high ratio of unemployment to vacancies (about 8.5 to 1), even before the 1930s, and no evidence of an inverse UV curve. Instead, there was a strong contemporaneous relationship between the weekly flow of notifications and weekly vacancies filled, which is more consistent with a queuing model than with search theory. It is consistent also with the view of contemporaries such as E. Wight Bakke that

the behavior of the unemployed in searching for employment gives no evidence that the possibility of drawing unemployment insurance benefits has retarded the efforts of the unemployed to get back to work. It has removed the cutting edge of the desperation which would otherwise attend that search (1933, p. 143).

A large proportion of the unemployed remained attached to particular firms or industries in the early 1930s. This proportion declined as the decade wore on, however. In the UK, some 20 per cent of the unemployed were classified as "temporarily stopped" (laid off with a definite promise of return to work within six

weeks). Even among those classified as wholly unemployed, it is estimated that in 1937 some 30 per cent of engagements were returns to the last employer.<sup>18</sup> Similarly in Belgium the number of "partially unemployed" workers exceeded those classified as unemployed in 1930 and 1931, but declined subsequently as a proportion of the total as the Depression took on a more permanent nature. In these two countries if not elsewhere, the workings of the unemployment insurance system appear to have encouraged temporary layoffs and continuing attachments of workers to firms. In other countries where the position is less clear because of lack of adequate statistics, evidence is nonetheless consistent. In Germany, for example, nearly as many workers were working short-time in 1930 as were wholly unemployed. In the US, there appears to have been a large proportion on temporary layoff in 1930. But over the course of the decade, there was a reversal in the proportions temporarily and permanently laid off. By 1940 there were 578,000 male wage and salary earners described as having a job but not at work compared with 3.2 million experienced workers seeking work.

Most disturbing was the extent of long-term unemployment. For the UK, where in September 1929 78.5 per cent of applicants for benefit or assistance had been out of work for less than three months and only 4.7 per cent for more than a year, by 1936 only 55 per cent had been unemployed for less than three months and fully 25 per cent for more than a year. In Australia long-term unemployment was exceptionally severe. The 1933 census indicated that over 70 per cent of the unemployed had been without work for over a year and 45 per cent for over three years. In the US, where the 1930 census distinguished two categories of unemployed persons -- those able to work and looking for jobs and those on temporary layoff the day preceding the enumerator's visit -- more than a third of males and a quarter of females in the first category had been out of work for at least fourteen weeks. Assuming the length of a completed spell to be double the length of a spell in progress, a spell of unemployment lasted at least seven months for members of this sizeable group.<sup>19</sup>

Table 1.11, drawn by Woytinsky from a survey of Philadelphia, shows the increasing incidence of long-term unemployment as the 1930s progressed. In Philadelphia, the share of unemployed men who had been out of work for less than a year fell from nearly 80 to less than 40 per cent between 1931 and 1937 (from 84 to 44 per cent for women), before rising in the 1938 recession. The proportion of those reporting no work for at least five years rose dramatically from negligible

**Table 1.11 Distribution of the Unemployed by Duration of Idleness in Philadelphia, 1931-8**

Item	1931	1932	1933	1935	1936	1937	1938
<i>I Male</i>							
Enumerated employable persons	48,641	48,526	48,320	55,775	54,989	55,848	54,005
Unemployed:							
absolute number	12,839	20,681	22,539	18,332	15,915	13,018	16,834
in per cent	26.4	42.6	46.6	32.9	28.9	23.3	31.2
Duration of Idleness							
(all duration classes)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 2 months	22.1	15.7	9.7	5.8	13.1	18.7	17.5
3 to 5 months	26.9	16.2	8.4	10.0	10.1	9.6	14.4
6 to 8 months	15.9	10.5	7.9	7.4	7.0	5.8	12.5
9 to 11 months	13.8	18.1	14.4	7.6	7.0	4.2	7.2
Total, Under 1 year	78.7	60.5	40.4	30.8	37.2	38.3	51.6
1 but less than 2 years	15.5	28.7	34.0	18.3	16.3	13.7	14.1
2 but less than 3 years	3.0	7.5	17.7	16.0	12.1	10.3	8.6
3 but less than 4 years	1.3	1.8	5.0	14.1	10.6	8.3	6.5
4 but less than 5 years	0.6	0.7	1.7	10.5	9.1	7.8	4.4
5 years and over	0.9	0.8	1.2	10.3	14.7	21.6	14.8
<i>II Female</i>							
Enumerated employable persons	16,944	17,953	17,896	22,749	24,833	23,758	21,397
Unemployed:							
absolute number	4,019	7,322	7,904	7,578	8,152	6,439	7,696
in per cent	23.7	40.8	44.2	33.3	32.8	27.1	36.0
Duration of Idleness							
(all duration classes)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 2 months	33.0	27.1	17.8	8.2	17.0	27.2	23.2
3 to 5 months	26.8	20.4	12.2	15.1	12.0	12.9	14.2
6 to 8 months	11.5	8.9	11.0	8.1	6.6	6.1	11.8
9 to 11 months	12.3	18.1	17.2	12.3	9.2	5.0	6.9
Total, Under 1 year	83.6	74.5	58.2	43.7	44.8	51.2	56.1
1 but less than 2 years	12.4	18.8	26.2	21.5	17.1	13.9	15.3
2 but less than 3 years	2.2	4.5	10.7	15.2	10.8	8.8	9.1
3 but less than 4 years	0.9	1.3	2.9	8.4	7.7	6.5	5.3
4 but less than 5 years	0.3	0.5	1.1	5.4	5.8	5.4	3.9
5 years and over	0.6	0.4	0.9	5.8	13.8	14.2	10.3

*Notes:* Data are for April-May of each year, except 1938 when the survey was made in July-August.

*Source:* Woytinsky (1942), p. 100.



levels to 22 per cent for men and 14 per cent for women. The distribution of unemployment spells by duration displays a bimodal pattern, with a heavy incidence of very short and very long durations. In Philadelphia if not every other city for which data are available, the labor market appears to have been bifurcated into a segment inhabited by workers with rapid turnover and high re-employment probabilities and another comprised of a hard core with little chance of regaining employment.

After losing their attachment to an employer a growing proportion of workers found themselves almost permanently without work and unable to regain it. In Australia, as Gregory *et al.* show in chapter 11, this could lead to extremely long unemployment spells. In 1933, more males had been unemployed for three to four years than for two to three years, and more had been idle for two to three years than for one to two years. Similar patterns can be observed in urban unemployment in the US. This distribution reflects the volume of separations in the early 1930s and contrasts with the normal pattern observed in interwar and postwar unemployment registers of declining numbers of persons unemployed as duration increases. As Table 1.12 shows, by the late 1930s the normal pattern had reasserted itself. Still, there remained a large proportion of long-term unemployed (individuals unemployed for more than a year). Among males, long-term unemployment as a

**Table 1.12 Percentage of Unemployed by Duration: Four Countries**

	Australia 1939		Belgium 1937		U.K. 1938		U.S. 1940	
	Male	Female	Male	Female	Male	Female	Male	Female
0 to 1 month	11.4	6.5	9.3	-	-	3.3	4.4	
1 to 3 months	23.4	14.6	17.6	45.7	60.0	16.5	18.6	
3 to 6 months	20.8	17.7	14.0	16.6	22.2	25.0	24.2	
6 months to a year	18.9	10.7	15.5	12.0	8.6	21.4	21.1	
1 year to 2 years	11.9	50.4	43.5	8.5	4.2	15.1	16.8	
2 years to 3 years	3.6			6.3	2.1	7.5	7.0	
3 years and above	9.8			10.9	2.8	11.0	8.0	

*Sources:* Australia: National Register, 1939; Belgium: Goosens, Peeters and Pepermans (chapter 8); U.K.: Ministry of Labour Gazette 1938 (GB only); U.S.: 1940 Census; Labor Force 5% Sample.

percentage of the unemployed was 25 per cent in Australia (1939), 50 per cent in Belgium (1937), 28 per cent in the UK (1937) and 46 per cent in the US (1940).

The number of unemployed persons in different duration categories can be used to calculate the rates at which the unemployed left the register. In his analysis of British unemployment statistics, Thomas (chapter 3) finds that re-employment probabilities declined very steeply with duration. Twenty per cent of unemployed persons with durations of less than three months subsequently appeared in the three-to-six months category. By contrast, 80 per cent of those unemployed for nine to twelve months were still unemployed after a year. It appears that by the mid-1930s those with very long durations had a negligible chance of regaining employment. It remains difficult to say whether the phenomenon reflects duration dependence -- as workers suffering from a lengthening spell grew detached from labor-market contacts and their skills and motivations atrophied -- or whether it simply reflects the sorting of the least employable workers into long-duration categories as their more employable counterparts found work.

It is critically important to acknowledge differences in the experience of different labor market groups with regard to turnover and unemployment spell duration. Younger workers appear to have experienced relatively high rates of turnover but to have endured lower unemployment spell durations. In contrast, older workers, particularly those over 50, typically suffered longer durations, largely accounting for their high unemployment rates. As Beveridge puts it,

Prolonged unemployment falls with crushing weight on the older men, once they have lost their niche in industry. The risk of losing one's job is much the same from 60-64 as it is from 35-44. The risk of being out of a job is half as much again at the later age than at the earlier age; the risk of becoming chronically unemployed, that is to say of being out for more than a year, is two and a half times as great (1944, p. 70).

Broomfield's analysis of South Australia reveals that the share of unemployed males re-entering permanent employment is higher for males less than 35 years old than for older men. In their study of displaced workers in Hartford and New Haven, Connecticut, Clague, Couper and Bakke (1934) similarly found that young workers were most successful in obtaining employment in two months or less, while skilled workers were most successful in obtaining a lasting situation.

The effects of differing re-employment probabilities among different groups are most clearly seen in the proportions of long-term unemployed. Of those recorded

as seeking work in the US in 1940, 26.1 per cent of males aged 20 to 24 had been unemployed for at least a year, compared to 49 per cent for those aged 55 to 59. For females the respective figures were 28 and 44 per cent. Despite their lower unemployment rates, females who continued to seek work suffered spells of unemployment nearly as long as those of males. This contrasts with the situation in the UK, where the proportion of long-term unemployed was significantly lower for females than males. The difference may be due to the impact of other personal characteristics and economic circumstances on the risk of long-term unemployment. In chapter 10, Margo finds for the US that along with age, industry, occupation and urban versus rural residence were important determinants of the incidence of long-term unemployment. For the UK the importance of region is clear: long-term unemployment increases dramatically as one moves from low to high unemployment regions. Thus in London in 1937, 7.7 per cent of wholly unemployed workers had been unemployed for over a year, while in Wales and the Northern region the figure was close to 40 per cent.

To summarize, evidence from a number of countries points to a characterization of the labor market in the 1930s as bifurcated into two segments, one inhabited by workers with rapid turnover and high re-employment probabilities, the other comprised of a hardcore of long-term unemployed. It is tempting to interpret this division in "insider-outsider" terms: once an outsider, it was extremely difficult for an individual to regain permanent employment, particularly if he or she was a member of an older age group. The concentration of unemployment in certain regions and industries may have served to exacerbate this segmentation because of the tendency of long-term unemployment to be most serious where the overall level of unemployment was highest. It also suggests the economic returns to migration were limited, since being an outsider in an unfamiliar locality may have been even less desirable than staying put.

## **8. The Effects of Unemployment**

It is for the effects of unemployment on millions of workers and their families that the 1930s are chiefly remembered. Poverty and privation leading to fatalism, hopelessness and social divisiveness are prominent parts of the story. But the effects were often more pervasive and more subtle than the apocalyptic stories of deprivation allow. High unemployment, by interrupting income streams, disrupting

rhythms of daily activity and altering relations within the family and community, affected every aspect of social and economic life.

As we have noted, social investigators became concerned with poverty in the nineteenth century, and their concern deepened as unemployment increased. Nowhere was this more marked than in Britain. Following Seebohm Rowntree, interwar social investigators attempted to implement the concept of a poverty line to measure how many families fell below it. The findings of these surveys are discussed by Harris in chapter 4. Overall they indicated that unemployment was the major cause of poverty, in contrast to before the First World War when low wages or intermittent employment had been the predominant causes. Repeating his prewar survey of York, Rowntree (1941) found in 1936 that 73 per cent of unemployed workers lived below the poverty line. The longer the duration of unemployment the more likely the family would fall below it. Surveys of Merseyside, Southampton, Bristol, London and York, while varying in the share of households in poverty, agreed that about a third of families with insufficient income were in that state due to unemployment.

Several points need to be borne in mind when considering the results of these inquiries. First, the extent of poverty was clearly far lower than thirty years earlier if comparable standards are applied, even though unemployment was higher in the 1930s than it had been prior to the First World War. Second, as Harris argues (chapter 4), many poverty lines represented a spartan dietary standard and left little room for non-food expenditure. Third, poverty fell disproportionately on certain groups, particularly children in large families whose heads received low wages when in employment and long durations when out of work.

In countries with public assistance or unemployment insurance programs, these played an important role in alleviating poverty and destitution. Surveys by the Pilgrim Trust and the UK Ministry of Labor found that family incomes fell with unemployment by 45 to 66 per cent. This suggests that unemployment benefits, which were 30 to 40 per cent of average wages over the period, accounted for the vast majority of income for the unemployed. Similar replacement rates apply to Germany in the period up to 1933 and to Belgium where income loss upon unemployment exceeded 50 percent. The operation of insurance schemes posed difficult dilemmas. One was that for low wage workers the insurance benefits often approached or exceeded wages when in work even though the family might still be

in poverty. One survey of Wales in the late 1930s indicated that a third of single men and nearly half of married men received more in unemployment benefits than in their previous jobs. Another problem was that benefits were often more generous for the short-term unemployed than the long-term unemployed who had exhausted their entitlements. While benefits may have blunted incentives for the short term unemployed, they often failed to provide adequate income maintenance for the chronically unemployed. In Britain and Belgium, where household means tests were introduced in the early 1930s, the long-term unemployed faced further reductions in income as well as the humiliation of official scrutiny.

In countries where insurance or relief systems were not so well developed, the effects of unemployment were worse. In Canada and Australia income loss on unemployment was significantly greater than in Britain (Green and MacKinnon, chapter 10, this volume). In the case of Australia, large number of families were pressed close to the margin of subsistence. As Gregory *et al.* (chapter 11) show, in 1933 a third of male breadwinners reported incomes of less than one third of the basic wage (which was itself set as a minimum living wage), and one eighth reported no income for the year. In Australia as elsewhere, when relief was given it was subject to a means test. To qualify for relief an unemployed person was given a form to be signed by a Justice of the Peace declaring that he was destitute, was visited by a local policeman who would report on his economic circumstances to the relief office, and was required to dispose of all bank savings and saleable assets.

Meagre relief payments or work relief were often allocated according to needs though in some cases other criteria were used. In Canada, farmers were often given greater support in order to maintain the viability of the farm, and in the US, work relief depended on the capacity to perform manual labor as well as need. Where relief payments were related to household resources this often meant that if one family member was working even at low wages the whole family would be denied benefit. In most countries the relief-giving authorities typically favored families; single men and women without dependants were typically given low priority. Within the family the burden was often shared unequally, with priority frequently given to children and the male breadwinner while other family members, especially wives and mothers, went without adequate diets.

The sharp decline in family income naturally led to changing expenditure patterns. In New Haven, Bakke (1940, p. 264) found it was most common to economize on clothes, recreation and food, least common to sacrifice home equity and children's schooling. Within the food budget there was often substitution of cheaper foods. In the small town of Marienthal in Austria where the only major source of employment, the flax mill, had closed, investigators found that between 1928 and 1930, while butter consumption fell by over 60 per cent, margarine consumption doubled, and while coffee consumption fell by over a third that of cocoa rose by 40 per cent (Jahoda *et al.*, 1973, p. 31). Meat virtually disappeared from the diet.

Households were sometimes able to supplement relief in various ways. Where garden space or allotments were available, groceries were often supplemented with the produce from vegetable gardens and from keeping chickens or rabbits. In rural areas, where there was greater opportunity to obtain agricultural products and game through charity, barter or stealth, it was often difficult to obtain other necessities. Among the supplies most frequently bartered or stolen was fuel, either wood or coal.

In some cases subsistence production was adopted on a larger scale, either collectively or individually. The branch of the Subsistence Production Society established in the eastern valley of Monmouthshire set up an elaborate scheme for the production and distribution of meat, vegetables and dairy products, and established a bakery, butchery and brickmaking works as well as boot repairing and tailoring services (Jahoda, 1987). Though these goods and services were obtained at less than half the shop price, fewer than 10 per cent of the unemployed in the area were members. In some countries there were opportunities for self-employment, such as subsistence farming. In South Australia an unemployed man with savings might buy cows with the intention of retailing milk to his neighbors. In urban Connecticut the venturesome might make a go of small-scale cleaning and repairing businesses. In Canada such enterprises were reflected by the rise in the proportion of the labor force reported in the census as self-employed. Unfortunately, such activities were often unsuccessful and remained the exception rather than the rule. In general, unemployment meant a restriction of expenditures and a narrowing of the scope of activity rather than the expansion of alternative income sources.

One avenue for escaping from limited prospects in Europe, that of emigration, narrowed during the interwar years. Intercontinental migration from Europe was much smaller in the early 1920s than in the prewar decade due to the 1920-21 depression and then to the legal restriction of immigration into the US, but revived in the later 1920s. The 1920s also saw internal migration in Europe, particularly from Italy and Poland to France and the Low Countries. In the 1930s, previous trends were reversed. For the first time Europe as a whole experienced a net inward movement: not only did returning migrants increase but the outstanding change was the fall in new emigration. Those who did emigrate did so largely to reunite previously separated families. Within Europe return flows also took place, particularly from France, though this only amounted to a small proportion of the previous inward movement. In general gloomy economic prospects and increasingly national restrictions on entry and exit reduced the volume of migration. As one observer puts it, "the thirties was a decade of sitting tight" (Kirk, 1946, p. 109).

Unemployment and the social programs developed in response affected patterns of migration within each country. In the US it was estimated that there were some 1.25 million "transients", mainly younger men scouring the cities and countryside for jobs or relief, drifting principally to the West where new arrivals in Los Angeles numbered over a thousand a day (Chandler, 1970, p. 46). The drift away from farms was halted. In most countries, however, internal migration slowed. This was particularly the case where relief involved a residency requirement. In Canada municipalities were reluctant to provide relief to migrants from rural areas; hence 95 per cent of those registering as unemployed in Toronto had lived there for more than a year (Cassidy, 1933, p. 39). In France strict residency requirements were imposed. Where relief was financed locally, as in the US, municipalities often faced insolvency. In a number of countries governments therefore attempted to restrict the drift to cities.

These responses had conflicting effects on household structure. On the one hand, unemployment might reunite families by forcing formerly independent youths or older family members to stay with relatives; on the other hand, the search for work might pull families apart. In the US rates of occupancy of housing fell in the major cities as families doubled up or took in lodgers. Studies of Australia commented on the exceptional number of wives and husbands living separately and

explained this by the tendency of married men in urban areas to go to the country in search of work.

Another effect of the Depression was a reduction in the rate of family formation. Marriage and birth rates per thousand population are given for the eight countries examined in this volume in Table 1.13. While comparisons between countries and across time are influenced by the age and sex distribution of the populations, the short-run variations are clear enough. The reduction in marriages in the early 1930s is perhaps least evident in the UK. Similarly, the distinct rise in

**Table 1.13 Marriage Rates and Birth Rates for Eight Countries**

	Australia	Belgium	Canada	France	Germany	Italy	UK	US
<i>Marriages (per thousand population)</i>								
1925	7.9	19.1	6.9	17.4	15.5	15.2	15.2	10.3
1926	7.9	18.4	7.0	16.9	15.4	15.0	14.3	10.2
1927	8.0	18.1	7.2	16.4	17.0	15.2	15.7	10.1
1928	7.7	17.9	7.5	16.5	18.5	14.2	15.4	9.8
1929	7.5	17.8	7.7	16.2	18.4	14.2	15.8	10.1
1930	6.7	17.7	7.0	16.4	17.5	14.8	15.8	9.2
1931	6.0	16.2	6.4	15.6	16.0	13.4	15.6	8.6
1932	6.6	15.1	5.9	15.1	15.7	12.8	15.3	7.9
1933	7.0	15.8	6.0	15.1	19.3	13.8	15.8	8.7
1934	7.7	15.2	6.8	14.2	22.3	14.8	16.9	10.3
1935	8.4	15.2	7.1	13.2	19.5	13.4	17.2	10.4
1936	8.7	15.5	7.4	13.4	18.1	14.8	17.4	10.7
1937	8.7	15.2	7.9	13.1	18.3	17.8	17.5	11.3
1938	9.0	14.7	7.9	13.1	18.8	15.0	17.6	10.3
<i>Births (per thousand population)</i>								
1925	22.9	19.6	26.1	19.0	20.8	28.4	18.3	24.1
1926	22.0	18.9	24.7	18.8	19.6	27.7	17.8	23.1
1927	21.7	18.2	24.3	18.2	18.4	27.5	16.6	22.7
1928	21.3	18.2	24.1	18.3	18.6	26.7	16.7	21.5
1929	20.3	18.1	23.5	17.7	18.0	25.6	16.3	20.5
1930	19.9	18.6	23.9	18.0	17.6	26.7	16.3	20.6
1931	18.2	18.1	23.2	17.5	16.0	24.9	15.8	19.5
1932	16.9	17.5	22.5	17.3	15.0	23.8	15.3	18.7
1933	16.8	16.3	21.0	16.2	14.7	23.8	14.4	17.6
1934	16.4	15.9	20.7	16.2	18.0	23.5	14.8	18.1
1935	16.6	15.2	20.5	15.3	18.9	23.4	14.7	17.9
1936	17.1	15.1	20.3	15.0	19.0	22.4	14.8	17.6
1937	17.4	15.0	20.1	14.7	18.8	22.9	14.9	17.9
1938	17.5	15.5	20.7	14.6	19.7	23.8	15.1	18.4

*Note:* US data are on births for the white population only.

*Sources:* European countries: Mitchell, 1975. Australia, Canada, US: Mitchell, 1983.



the recovery phase is least evident in Belgium and France where the recovery was delayed. The same pattern can be discerned in birth rates, though this should be seen relative to the long-term downward trend. Viewed in this light, there is a distinct upturn in birth rates in the later 1930s, excepting once again Belgium and France. While these variations are hardly dramatic, they provide some indication of the restricted scope for family formation faced by the unemployed.

Though the Depression is sometimes seen as resulting in severe deterioration in health and physical well-being, this is not reflected in a dramatic increase in crude death rates. These rates, which are shown for the same eight countries in Table 1.14, appear if anything to have been slightly below trend in the early to mid-1930s. Clearly there is no simple relationship between premature death and unemployment. In the US, there was a continuing decline in most causes of death but particularly in infectious disease and diseases of the genito-urinary and digestive systems. The number of suicides rose briefly in 1931-32 but this was offset by a decline in deaths from other violent and accidental causes.

Though the effects do not show up in aggregate death rates, it is widely believed that the 1930s saw a general deterioration in health. As one visitor to the US puts it in 1934, "people do not starve to death, they just starve."<sup>20</sup> The nature and extent of these effects is still debated, as outlined by Harris for the UK in chapter 4. Most health statistics are affected by subjective perceptions and by institutional factors, but the British statistics on sickness and disablement claims recently examined by Whiteside (1987) indicate a sharp increase in sickness in the 1920s followed by a levelling off in the 1930s. Maternal mortality and infant mortality rates are often thought to be sensitive indicators of community health status. Though these differ widely between prosperous and disadvantaged regions, the effects of unemployment are hard to distinguish. Infant mortality rates per thousand live births are shown in the lower panel of Table 1.14. Infant mortality in the early 1930s appears to be slightly above trend for some countries and below for others. An alternative measure examined by Harris in chapter 4 is the heights of children. His results indicate that unemployment had retarding effects on growth in some areas but not in others. It appears that to the extent that there were significant health effects they are hidden in the aggregate. A deterioration in the health of the unemployed may have been offset by improvements in the health status of the employed. In addition, any underlying deterioration in standards of health may have been offset by improved standards of treatment and care.

**Table 1.14 Crude Death Rates and Infant Mortality Rates**

	Australia	Belgium	Canada	France	Germany	Italy	UK	US
<i>Death rate (per thousand population)</i>								
1925	9.2	12.8	10.7	17.4	11.9	17.9	12.1	11.1
1926	9.4	12.8	11.4	17.4	11.7	17.2	11.6	11.6
1927	9.5	13.0	11.0	16.5	12.0	16.2	12.3	10.8
1928	9.5	12.8	11.2	16.4	11.6	16.1	11.7	11.4
1929	9.6	14.4	11.4	17.9	12.6	16.5	13.4	11.3
1930	8.6	12.8	10.8	15.6	11.0	14.1	11.4	10.8
1931	8.7	12.7	10.2	16.2	11.2	14.8	12.3	10.6
1932	8.6	12.7	10.0	15.8	10.8	14.7	12.0	10.5
1933	8.9	12.7	9.7	15.8	11.2	13.7	12.3	10.3
1934	9.3	11.7	9.5	15.1	10.9	13.3	11.8	10.6
1935	9.5	12.3	9.9	15.7	11.8	14.0	11.7	10.6
1936	9.4	12.2	9.9	15.3	11.8	13.8	12.1	11.1
1937	9.4	12.5	10.4	15.0	11.7	14.3	12.4	10.8
1938	9.6	12.5	9.7	15.4	11.7	14.1	11.6	10.3
<i>Infant mortality (per thousand live births)</i>								
1925	53	100	93	85	105	119	75	68
1926	54	104	102	86	102	127	70	70
1927	55	98	95	97	97	120	70	61
1928	53	94	90	84	89	120	65	64
1929	51	110	93	98	97	125	74	63
1930	47	100	91	75	85	106	60	60
1931	42	89	86	75	83	113	66	57
1932	41	94	75	71	79	110	64	53
1933	39	92	74	76	77	100	63	54
1934	44	82	73	73	66	99	59	52
1935	40	85	72	67	99	101	57	52
1936	41	86	68	66	66	100	59	53
1937	38	83	77	69	64	109	58	50
1938	38	81	64	68	60	106	53	47

*Note:* US data are on births for the white population only.

*Source:* European countries: Mitchell, 1975. Australia, Canada, US: Mitchell, 1983.

Perhaps more marked than the physical deterioration of the unemployed was the decline in morale. There has been growing interest in the psychological effects of unemployment, serious study of which began in the interwar period. Eisenberg and Lazarsfeld (1938) surveyed the findings of over a hundred studies of the effects on personality traits and sociopolitical attitudes from a range of countries. These provided widespread evidence of loss of morale and deterioration in mental attitudes, which was manifested in widely differing ways depending on the personality of the individual. One of the most notable studies was that of the town

of Marienthal. Here researchers identified several different psychological states. They found that 16 per cent of the unemployed could be described as "unbroken", 48 per cent as "resigned", 11 per cent as "in despair" and 25 per cent as "apathetic". The most common response, resignation, was characterized by

an attitude of drifting along, indifferently and without expectations, accepting a situation that cannot be changed. With it goes a relatively calm general mood, and even, sporadically, moments of serenity and joy. But the future, even in the shape of plans, has no longer any place in the thought or even the dreams of these families (Jahoda *et al.*, 1973, pp. 52-3).

Those in despair and the apathetic exhibited a complete breakdown either in family life or in personal rationality.

Contemporary studies linked the psychological state with loss of income and the decline in family resources. In Marienthal those described as "broken" had considerably lower average incomes than the other groups. There was also evidence that families moved through these different psychological states as the duration of unemployment increased and resources dwindled. One study of Scotland concluded that the incidence of "psychoneurotic" diseases among the unemployed rose with the duration of unemployment. Psychological effects such as depression bore particularly on skilled workers, who lost status and authority among family and friends, and on older workers who were less adaptable to the change in circumstances (Pilgrim Trust, 1938). One of the most important findings to emerge from contemporary studies was that increased leisure, which might have been expected to benefit the unemployed, had the opposite effect. Time hung heavily on their hands. The lack of a routine structured around work appeared disruptive and led to a loss of purpose. It was often reported that the unemployed read less and participated less in sporting or community activity than when they were employed. Because of lack of resources and loss of motivation the unemployed often found themselves cut off from their former workmates and increasingly detached from the world of work.

Perhaps these effects help to explain why the unemployed were not more politically active in the 1930s. Eisenberg and Lazarsfeld suggested that, though the unemployed tended to be more critical of the existing economic order, they were not strongly radicalized by unemployment. In countries where there was the greatest privation due to unemployment, the willingness and ability of the unemployed to protest was least. In the US, survey evidence for 1939 indicated that the unemployed had generally withdrawn from collective activity. This was

explained by a low level of class consciousness which in turn arose from the culture of individualism (Verba and Schlozman, 1977). Here, as in other cultural settings, political attitudes were more strongly related to social or occupational status than to employment status. In Germany, where Hitler's growing popularity is often related to the severity of the Depression, it was not the unemployed who brought the regime to power. Though the Hitler youth movement may owe something to unemployment, many unemployed resented the regime in its early years (Kershaw, 1983, p. 81). In Australia, where there was little fear of repression, there were sporadic and sometimes violent outbursts but little cohesiveness among the unemployed (see MacKinolty, 1981). The obvious difference in attitude between employed and unemployed was towards relief and benefits. It was over these issues that successful collective activity and political protest arose. Prominent among these was the British National Unemployed Workers Movement which gradually gained support in the 1920s and organized hunger marches demanding work or maintenance at trade union rates of pay (see Kingsford, 1982).

In summary, unemployment imposed widespread poverty and privation which systems of relief were only partially able to mitigate. The effects on health and vitality are difficult to identify, but psychological effects combined to reduce the employability of the unemployed. Even though the majority continued to search actively for work, the atrophy of skills, loss of morale and possibly declining health and loss of contacts left them at a severe disadvantage.

## 9. Conclusion

Our overview of interwar unemployment experience has been limited to the relatively advanced economies of Europe, North America and Australia. The same is true of the chapters to follow. Extending the discussion to the economies of Eastern Europe, Latin America and other parts of the less-developed world would no doubt reveal an even greater variety of experience but is beyond the scope of this volume. But even this limited geographical perspective impresses upon the reader the extent of variations in interwar unemployment. On the aggregate level, wage and employment levels diverged markedly across countries both in the early 1920s and later 1930s. Only in the early 1930s is a common pattern evident. On more disaggregated levels, the incidence of unemployment across economic and social groups also diverged markedly across countries. As far as social effects are concerned, the interwar period presents a picture of contrasting and conflicting

trends. Clearly, further light can be shed on the reasons for both international similarities and differences only by considering individual country experiences in more detail. Hence it is to the country studies that we now turn.

## NOTES

1. See U.S. Council of Economic Advisors (1987), Blanchard and Summers (1986) and OECD *Main Economic Indicators* (various issues).
2. What follows is drawn from the Preface and Introduction to Keyssar (1986).
3. 1896 census, vol. 4, pp. cxxi-cxxii, cited in Salais *et al.* (1986), p. 39.
4. See also the discussion below of work by Maddison. Much of the rest of this section draws on Galenson and Zellner's (1957) study.
5. See, for example, Walker (1936), p. 12 and for a recent discussion Forster (1985).
6. "It will be found I think that the change in real wage rates associated with a change in money wage rates, so far from being usually in the same direction, is almost always in the opposite direction. When money wage rates are rising, that is to say it will be found that real wages are falling; and when money wages are falling real wages are rising. This is because in the short period falling money wages and rising real wages are each for independent reasons likely to accompany decreasing employment; labour being readier to accept real wage cuts when employment is falling off, yet real" (Keynes, 1936, p. 10).
7. Some have argued that changing values as well as changing economic circumstances figured in participation trends; see Bolin (1978).
8. Cited in Kessler-Harris (1982), p. 256.
9. This relationship resembles that found by Gordon (1983), whose long-run time series indicated a strong relationship between wages and employment.
10. For discussion relating real wage changes to differing labor market structures and policies see Phelps Brown and Browne (1968) and Bonnell (1981).
11. The NRA was declared unconstitutional by the Supreme Court in 1935, but Weinstein estimates that nullification of the codes did not fully reverse their original effect (1978, p. 267).
12. Pigou puts it as follows:  
  
"partly through state action and partly to the added strength given to work people's organizations engaged in wage bargaining by the development of unemployment insurance, wage rates have, over a wide area, been set at a level which is too high . . . and the very large percentage of unemployment during the whole of the last six years is due to this new factor in our economic life" (1927, p. 355).
13. For recent discussion of structural factors in the 1920s and 1930s in the US and Germany see Bernstein (1986) and James (1986), chapter 4, respectively.

14. The greater stability of female employment provides another reason for doubting the dominance of the discouraged worker effect, particularly in the early 1930s. The effects on married women are likely to have differed from those on other demographic groups, however, and may have differed between the early 1930s and later in the decade.
15. Such effects can be seen in the data from the US census of 1940, where individuals seeking work were divided into "experienced workers" and "new workers". For males the new workers accounted for 11 per cent of those seeking work and for females 23 per cent. The bulk of these are concentrated in the 16- to 19-year-old age group. These were excluded in the unemployment rates for 1940 in Table 1.9 (while those on emergency work were included). Had they been included the unemployment rates for the 14- to 19-year old group would have been 31.1 per cent for males and 32.2 per cent for females.
16. For early work on these aspects see Singer (1939) and Woytinsky (1942).
17. Comparisons with postwar rates of flow are discussed by Baily (1983) and Thomas (chapter 3, this volume).
18. Beveridge (1944), pp. 68, 80.
19. Since unemployment was rising, doubling the length of spells in progress will tend to underestimate both the average length of spell durations and the share with long completed spells.
20. The observer (from Britain) was Sir A. Maitland. His comments are reported in the Royal Institute for International Affairs (1935), p. 14.

## REFERENCES

- Arndt, H. W. (1944), *Economic Lessons of the Nineteen Thirties*, London: Frank Cass.
- Asselin, J. C. (1966), "La semaine de 40 heures, le chômage et l'emploi," *Le Mouvement Social* 54, pp. 183-204.
- Baily, M. N. (1983), "The Labor Market in the 1930s," in James Tobin (ed.) *Macroeconomics, Prices and Quantities*, Washington, DC: Brookings Institution, pp. 21-60.
- Bain, G. S. and Price, R. (1980), *Profiles of Union Growth: A Comparative Statistical Portrait of Eight Countries*, Oxford: Blackwell.
- Bakke, E. Wight (1933), *The Unemployed Man*, London: Nisbet.
- Bakke, E. Wight (1940), *The Unemployed Worker*, New Haven: Yale University Press.
- Beenstock, M. and Warburton, P. (1986), "Wages and Unemployment in Interwar Britain," *Explorations in Economic History* 23, pp. 153-76.
- Benjamin, D. K. and Kochin, L. A. (1979), "Searching for an Explanation for Unemployment in Interwar Britain," *Journal of Political Economy* 87, pp. 441-48.
- Bernanke, B. S. (1985) "Employment, Hours and Earnings in the Depression: An Analysis of Eight Manufacturing Industries," *American Economic Review* 76, pp. 82-109.
- Bernstein, M. A. (1986), "The Problem of Economic Recovery in the United States: 1929-39," *Rivista di Storia Economica* 3 (International Issue), pp. 158-72.
- Beveridge, W. H. (1936), "An Analysis of Unemployment," *Economica* 4, pp. 357-86.
- Beveridge, W. H. (1944), *Full Employment in a Free Society*, London: Allen & Unwin.
- Blanchard, O. J. and Summers, L. H. (1986), "Hysteresis and the European Unemployment Problem," in *NBER Macroeconomics Annual*, Cambridge: National Bureau of Economic Research.
- Bolin, W. (1978), "The Economics of Middle Income Family Life: Working Women During the Great Depression," *Journal of American History* 65, pp. 60-74.
- Bonnell, S. (1981), "Real Wages and Employment in the Great Depression," *Economic Record*, pp. 277-81.
- Broadberry, S. N. (1986), "Aggregate Supply in Interwar Britain," *Economic Journal* 96, pp. 466-81.
- Broomfield, R. (1978), *Unemployed Workers: A Social History of the Great Depression in Adelaide*, St. Lucia: University of Queensland Press.



- Butlin, N. G. (1984), "Select Comparative Economic Statistics 1900-1940: Australia, Britain, Japan, New Zealand and USA," *Source Papers in Economic History*, Department of Economic History, Canberra: Australian National University.
- Bry, G. (1960), *Wages in Germany 1871-1945*, New York: National Bureau of Economic Research.
- Cassidy, H. M. (1933), *Unemployment and Relief in Ontario 1929-32*, Toronto: J. M. Dent.
- Chandler, L. V. (1970), *America's Greatest Depression*, New York: Harper & Row.
- Clague, E., Couper, W. J. and Bakke, E. Wight, (1934), *After the Shutdown*, New Haven: Yale University Press.
- Crafts, N. F. R. (1986), "Long Term Unemployment, Excess Demand and the Wage Equation in Britain, 1925-1939," Discussion Paper no. 147, London: Centre for Economic Policy Research.
- Crafts, N. F. R. (1987), "Long Term Unemployment in Britain in the 1930s," *Economic History Review* 40, pp. 18-432.
- Darby, M. R. (1976), "Three and a Half Million Workers Have Been Mislaid: or An Explanation of Unemployment 1934-41," *Journal of Political Economy* 84, pp. 487-93.
- Dimsdale, N. H. (1984), "Employment and Real Wages in the Interwar Period," *National Institute Economic Review* 110, pp. 94-102.
- Dunlop, J. T. (1938), "The Movement of Real and Money Wage Rates," *Economic Journal* 48, pp. 413-34.
- Eichengreen, B. (1986a), "Understanding 1921-1927: Inflation and Economic Recovery in the 1920s," *Rivista di Storia Economica* 3 (International Issue), pp. 34-66.
- Eichengreen, B. (1986b), "Unemployment in Interwar Britain: Dole or Doldrums?" *Oxford Economics Papers* (forthcoming).
- Eichengreen, B. (1986c), "Unemployment in Interwar Britain: New Evidence from London," *Journal of Interdisciplinary History* 17, pp. 335-58.
- Eichengreen, B. (1987), "Juvenile Unemployment in 20th Century Britain: The Emergence of a Problem," *Social Research* 54, pp. 273-301.
- Eichengreen, B. and Sachs, J. (1985), "Exchange Rates and Economic Recovery in the 1930s," *Journal of Economic History* 45, pp. 925-46.
- Eisenberg, P. and Lazarsfeld, P. F. (1938), "The Psychological Effects of Unemployment," *Psychological Bulletin* 35, pp. 358-90.
- Fearon, P. (1979), *The Origins and Nature of the Great Slump, 1929-32*, London: Macmillan.

- Feinstein, C. H. (1972), *National Income, Expenditure and Output of the United Kingdom, 1855-1965*, Cambridge: Cambridge University Press.
- Forster, C. (1985), "Unemployment and the Australian Economic Recovery of the 1930s," Working Paper no. 45, Department of Economic History, Canberra: Australian National University.
- Galenson, W. and Zellner, A. (1957), "International Comparison of Unemployment Rates," in Universities-National Bureau Committee for Economic Research (ed.), *The Measurement and Behavior of Unemployment*, Princeton: Princeton University Press, pp. 439-580.
- Garraty, J. A. (1978), *Unemployment in History*, New York: Harcourt Brace.
- Garraty, J. A. (1986), *The Great Depression*, New York: Harcourt Brace.
- Garside, W. R. (1980), *The Measurement of Unemployment*, Oxford: Blackwell.
- Gordon, R. J. (1983), "A Century of Evidence on Wage and Price Stickiness in the US, the UK and Japan," in J. Tobin (ed.), *Macroeconomics, Prices and Quantities*, Washington DC: Brookings Institution.
- Harris, J. (1972), *Unemployment and Politics*, Oxford: Clarendon Press.
- Harris, J. and Hatton, T. (1985), "A Labor Market Model of Unemployment Insurance," Discussion Paper no. 85-08, McMaster University.
- Hatton, T. J. (1981), "Employment Functions for UK Industries Between the Wars," Economics Discussion Paper no. 181, Colchester: University of Essex.
- Hatton, T. J. (1985), "The British Labor Market in the 1930's: A Test of the Search-Turnover Approach," *Explorations in Economic History* 22, pp. 257-70.
- Hatton, T. J. (1986a), "Demand, Supply and Economic Policy During the 1930s," Economics Discussion Paper no. 281, Colchester: University of Essex.
- Hatton, T. J. (1986b), "Female Labor Force Participation: The Enigma of the Interwar Period," Working Paper no. 71, Department of Economic History, Canberra: Australian National University.
- Hatton, T. J. (1986c), "Structural Aspects of Unemployment in Britain Between the World Wars," *Research in Economic History* 10, pp. 55-92.
- Hatton, T. J. (1987), "A Quarterly Model of the Labor Market in Interwar Britain," *Oxford Bulletin of Economics and Statistics* (forthcoming).
- International Labor Office (1948), *Employment, Unemployment and Labor Force Statistics*, New Series, no. 7, Geneva: ILO.
- Jahoda, M. (1987), "Unemployed Men at Work," in D. Fryer and P. Ullah (eds.), *Unemployed People*, Milton Keynes: Open University Press.
- Jahoda, M., Lazarsfeld, P. F. and Zeisel, H. (1972), *Marienthal*, London: Tavistock.

- James, H. (1986), *The German Slump: Politics and Economics 1924-1936*, Oxford: Clarendon Press.
- Kershaw, I. (1983), *Popular Opinion and Political Dissent in the Third Reich*, Oxford: Oxford University Press.
- Keynes, J. M. (1936), *The General Theory of Employment, Interest and Money*, London: Macmillan.
- Kesselman, J. R. and Savin, N. E. (1978), "Three and a Half Million Workers Never Were Lost," *Economic Inquiry* 16, pp.
- Kessler-Harris, A. (1982), *Out to Work: A History of Wage-Earning Women in the United States*, Oxford: Oxford University Press.
- Keyssar, A. (1986), *Out of Work: The First Century of Unemployment in Massachusetts*, Cambridge: Cambridge University Press.
- Kingsford, P. (1982), *The Hunger Marches in Britain 1920-1940*, London: Lawrence & Wishart.
- Kindleberger, C. P. (1973), *The World in Depression, 1929-39*, London: Allen & Lane.
- Kirk, D. (1946), *Europe's Population in the Interwar Years*, New York: Gordon & Breach.
- Lebergott, S. (1964), *Manpower in Economic Growth*, New York: McGraw-Hill.
- Lilien, D. M. (1982), "Sectoral Shifts and Cyclical Unemployment," *Journal of Political Economy* 90, pp. 777-93.
- Llewellyn Smith, H. (1932), *New Survey of London Life and Labor*, vol. 3, London: P. S. King.
- Long, C. D. (1958), *The Labor Force under Changing Conditions of Income and Employment*, Princeton, New Jersey: National Bureau of Economic Research.
- Lucas, R. E. and Rapping, L. (1969), "Real Wages, Employment and Inflation," *Journal of Political Economy* 77, pp. 721-54.
- Maddison, A. (1964), *Economic Growth in the West*, London: Allen & Unwin.
- Marsh, L. C. (1940), *Canadians In and Out of Work*, Toronto: Oxford University Press.
- Matthews, K. G. P. (1987), "Aggregate Supply in Interwar Britain: A Comment," unpublished manuscript, University of Liverpool.
- McDonald, I. and Solow, R. M. (1981), "Wage Bargaining and Employment," *American Economic Review* 71, pp. 896-908.
- Mitchell, B. R. (1975), *European Historical Statistics: The Americas and Australasia*, London: Macmillan.

- Newell, A. and Symons, J. S. V. (1987), "Corporatism, Laissez Faire and the Rise in Unemployment," *European Economic Review* 31, pp. 567-614.
- Organization for Economic Cooperation and Development (1986), *Economic Outlook* 40, Paris: OECD.
- Organization for Economic Cooperation and Development (various years), *Main Economic Indicators*, Paris: OECD.
- Parrish, John B. (1939), "Changes in the Nation's Labor Supply," *American Economic Review* 29, pp. 328-30.
- Phelps-Brown, E. H. and Browne, M. (1968), *A Century of Pay*, London: Macmillan.
- Pigou, A. C. (1927), "Wages Policy and Unemployment," *Economic Journal* 38, pp. 355-68.
- Pilgrim Trust (1938), *Men Without Work*, Cambridge: Cambridge University Press.
- Reddaway, W. B. (1938), "Australian Wage Policy 1929-1937," *International Labour Review* 37, pp. 314-38.
- Romer, C. (1986), "Spurious Volatility in Historical Unemployment Data," *Journal of Political Economy* 94, pp. 1-37.
- Rowntree, B. Seebohm (1941), *Poverty and Progress*, London: Longmans Green.
- Royal Institute of International Affairs (1935), *Unemployment: An International Problem*, London:
- Ruggles, Richard (1940), "The Relative Movements of Real and Money Wage Rates," *Quarterly Journal of Economics* 55, pp. 130-49.
- Salais, R. N., Bavarez, N. and Reynaud, B. (1986), *L'invention du chômage*, Paris: Presses Universitaires de France.
- Singer, H. W. (1938), "Regional Labour Markets and the Process of Unemployment," *Review of Economic Studies* 7, pp. 42-58.
- Svennilson, I. (1954), *Growth and Stagnation in the European Economy*, Geneva: Organization of European Economic Cooperation.
- Tarshis, L. (1939), "Changes in Real and Money Wages," *Economic Journal* 49, pp. 150-54.
- Taylor, F. I. (1909), *A Bibliography of Unemployment and the Unemployed*, London: P. S. King.
- UK Ministry of Health (1935), *Effects of Existing Economic Circumstances on the Health of the Community in Durham*, Cmd 4886, London: HMSO.
- US Council of Economic Advisers (1987), *Economic Report of the President*, Washington, DC: Government Printing Office.

- Verba, S. and Schilozman, K. L. (1977), "Unemployment, Class Consciousness and Radical Politics: What Didn't Happen in the Thirties," *Journal of Politics* 39, pp. 291-323.
- Walker, E. R. (1936), *Unemployment Policy with Special Reference to Australia*, Sydney.
- Weinstein, M. (1981), "Some Macroeconomic Impacts of the National Industrial Recovery Act, 1933-1935," in Karl Brunner (ed.), *The Great Depression Revisited*, Boston: Martinus-Nijhoff, pp. 262-81.
- Whiteside, N. (1987), "Counting the Cost: Sickness and Disability Among Working People in an Era of Industrial Recession 1920-39," *Economic History Review* 40, pp. 228-46.
- Woytinsky, W. S. (1942), *Three Aspects of Labor Dynamics*, Washington, DC: Social Science Research Council.