

## CHAPTER ONE

### The Nature of Unemployment in Interwar Germany

In spite of widespread interest in the causes and consequences of German interwar unemployment, many of its most basic characteristics remain poorly understood. Its relative magnitude, turning points, and composition have all yet to be firmly established. This chapter addresses such issues by analyzing previously neglected data sources, especially those pertaining to labor market flows.

Most earlier descriptive work on German interwar unemployment has focused on the stock of those out of work, whether in the country as a whole or in regionally or occupationally limited groups. Expanding the scope of inquiry to encompass data on turnover yields two main benefits. First, evidence on flows into and out of employment and unemployment improves our knowledge of the timing of Germany's labor market fluctuations, and provides a more nuanced view of how they were brought about. Second, the turnover data allow the estimation of typical unemployment spell lengths for various groups of workers. The results here illuminate both the likely causes as well as the consequences of Germany's high interwar unemployment rates.

The chapter begins with a brief presentation of unemployment rate series and an evaluation of the

implications of turnover rates for the timing and nature of labor market fluctuations. It then turns to the estimation of typical spell lengths, and to discussion of the age, gender, regional, and occupational incidence of German interwar unemployment. Where possible, the results are compared with those for interwar Great Britain, comparisons which on the whole highlight the similarities between the two countries. It should be noted that the results presented here are meant to supplement, rather than supplant, the conclusions of less quantitative approaches to German interwar unemployment.

#### I. Stocks and Flows as Indicators of Labor Market Fluctuations

Surely the most common indicator of labor market fluctuations is the unemployment rate. Three such rates, one for the labor force as a whole and two others for subsets of the labor force, are given for Germany in Table 1.1. Each is based on the census of June 16, 1933, with the first two extrapolated to other years using movements in the number of job-seekers registered at official labor exchanges (the Galenson and Zellner index uses movements in the number of registered unemployed).<sup>1</sup> The series based on

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<sup>1</sup>Manfred Lohr (1982) and Hachtman (1987) provide good reviews of the literature on German unemployment rates. Wiggs (1933) is still a valuable review of the various

Table 1.1  
UNEMPLOYMENT RATES

	1	2	3	4	5
	German Unemployment Rates			British Unemployment Rates	
	UNTOT	UNINS	G&Z	UNTOT	UNINS
1925	2.83	4.63	9.2	11.3	8.6
1926	8.20	13.32	15.3	12.5	9.6
1927	5.21	8.54	10.1	9.7	7.4
1928	5.27	8.52	10.4	10.8	8.2
1929	7.15	11.49	14.3	10.4	8.0
1930	10.93	17.10	23.2	16.1	12.3
1931	16.30	25.05	34.1	21.3	16.4
1932	20.40	31.47	42.0	22.1	17.0
1933	18.07	27.94	36.2	19.9	15.4
1934	11.66	17.85	20.5	16.7	12.9
1935	9.05	13.97	16.2	15.5	12.0
1936	6.43	9.83	12.0	13.1	10.2
1937	3.74	5.69	6.9	10.8	8.5
1938	1.90	2.86	3.2	12.9	10.1

Note: Untot is unemployment as a share of the total labor force. The Untot series for Britain comes from Feinstein (1972) table 12B. The Untot series for Germany is defined in Appendix A.

Unins is unemployment among insured workers as a share of the insured labor force. The Unins series for Britain comes from Galenson and Zellner (1957) p. 455. The Unins series for Germany is defined in Appendix A.

G&Z is taken from Galenson and Zellner, p. 535, table f-5. It is a measure of unemployment in industry and manufacturing.

the total labor force is the one most nearly comparable to Feinstein's series for Great Britain.<sup>2</sup> It makes overall annual German unemployment rates look much more like those

sources. One point discussed in each of these works is the validity of the unemployment count springing from the 1933 census. While the census may have been biased by a failure to count the "invisible unemployed," the likely magnitude of the bias resulting in the overall unemployment rate is quite small. Taking an upper-bound estimate of the number of invisible unemployed from Hachtman (p. 181, note 11) and adding it to the census count would raise the unemployment rate by about 2 percentage points. Hemmer (1935) provides the best discussion of the uncounted unemployed.

<sup>2</sup>In a private communication, Theodore Balderston of the University of Manchester has shown me work leading towards a more detailed comparison of British, German, and American unemployment rates. The comparison presented in Table 1.1 between German and British unemployment rates on a total labor force basis is hence a provisional one.

across the North Sea than is commonly supposed. Still, it is important to note that unemployment rates for dependent wage laborers were significantly higher in Germany than in Britain, as a comparison of columns 2 and 5 reveals.

Overall unemployment rates in the two countries were roughly comparable only because a much larger share of the labor force in Germany was self-employed or engaged in family enterprise, and hence relatively isolated from the risks of unemployment.

While the three German series agree on the overall pattern of unemployment movements over the years, they say nothing about the labor market processes underlying the fluctuations.<sup>3</sup> One advantage of data on labor turnover is that they provide some rudimentary information about the causes of movements in stocks. Historians of interwar

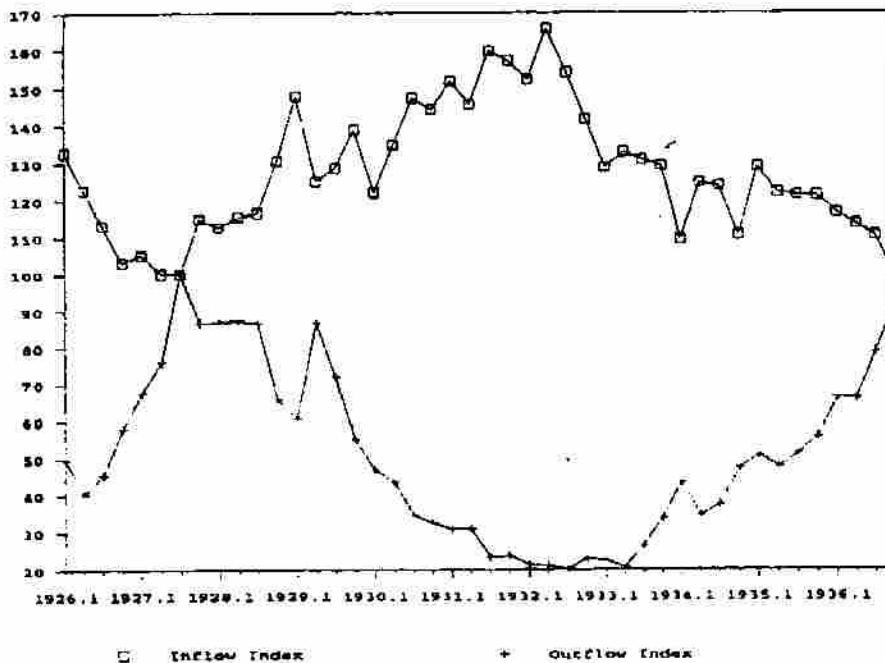
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<sup>3</sup>One facet of the German experience on which the series agree--the rapidity of the Nazi recovery--has recently been called into question by Dan Silverman (1986). He argues that the official unemployment counts conducted by the Nazis may have been biased downward. The Nazis did redefine unemployment so that those engaged in relief projects were no longer reported as unemployed. But the two new unemployment rate series reported in Table 1 are not affected by the change, since they are based on movements in the number of registered job-seekers. Relief workers no longer counted as unemployed remained on the official list of job-seekers. Silverman also claims that the Nazification of the labor exchanges led to disorganization and a propensity to undercount the number of those out of work. Such a process would have affected the counts of job-seekers, as well the counts of flows relied on later in the chapter. Silverman does not provide much evidence for his contention, however, and in its absence the stock and flow data are treated as if they provide an unbiased picture of Germany's labor market dynamics.

Germany are fortunate to have excellent turnover data collected by the labor exchanges, which kept track of the monthly flows of workers on and off the register of job-seekers. If supplemented by evidence on the stocks of those either employed or looking for work, the flow data can be used to calculate rates of movement into and out of unemployment.

Graph 1.1 plots indices (1927.3 = 100) of seasonally adjusted quarterly flow rates for the years 1926-1936. The graph reveals that the onset of the depression in 1929 was

Graph 1.1



due in large part to the decline in the probability of workers leaving unemployment. While the inflow probability increased between 1929 and 1931, it did not move as sharply as its counterpart. The first effect of the recovery, on the other hand, was a decline in the likelihood of job loss, as the seasonally adjusted inflow rate began a sustained fall in the summer of 1932. The outflow rate did not show signs of improvement until the third quarter of 1933, although it then proceeded to rise quite rapidly.

Ideally one would like to supplement the data on flows to and from unemployment with complementary data on hirings and separations at the firm level. Unfortunately there is only a tiny amount of such evidence for Germany. Table 1.2 presents the currently available data in the form of average monthly turnover rates per 100 workers for four large establishments, three of which were engaged in the iron and steel industry of the Ruhr. Compared with the only slightly more representative American data also given in the table, the German series evince quite low turnover rates throughout the interwar period. It is impossible to say whether this reflects any true difference between the two countries. Until more firm-specific data is discovered, discussions of labor turnover in interwar Germany will have to focus on the turnover of the unemployed. The next section returns to this task.

Table 1.2  
EMPLOYMENT TURNOVER

	Krupp Gusstahl fabrik		Friedrich- Wilhelms Huette		August Thyssen Huette		Bayer	U.S. Manufacturing	
	ON	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
1924	1.00	2.0					5.32	3.3	3.8
1925	1.25	2.8						5.2	4.0
1926	1.80	3.2						4.5	3.9
1927	3.52	1.1	2.60	2.69	0.46	0.71	1.70	3.3	3.3
1928	1.41	1.5	0.95	2.36	0.06	0.07	1.91	3.7	3.1
1929	1.59	1.4	1.01	0.86	0.47	0.61		5.1	3.9
1930	0.81	3.1	0.59	3.50	0.55	2.18	0.97	3.8	5.9
1931	1.04	2.9			0.68	0.67	0.88	3.7	4.8
1932	2.17	2.2			0.92	0.77		4.1	5.2
1933	4.16	0.7			0.83	0.43		6.5	4.5
1934	3.76	0.5			1.46	0.40		5.7	4.9
1935	1.94	0.5			0.75	0.40		5.1	4.3
1936	1.47	0.6			0.86	0.45		5.3	4.0
1937	1.32	0.6			0.62	0.46		4.3	5.2

Note: "ON" denotes the accession rate. "OFF" denotes the separation rate. The rates are average monthly rates per 100 employees.

Sources: The U.S. data are from Bailey (1982) p. 29. The sources for the German data are specified in Appendix A under the heading "Employment Turnover."

## II. Estimating Average Completed Durations of Unemployment Spells

During the years between 1930 and 1934, the German unemployment rate was especially high. Such rates could have been the product of a large number of short spells or of a much smaller number of longer ones--or of a combination of the two. Given the controversy over the role of unemployment in the rise of the Nazis, there are more reasons than usual for wishing to know how long typical spells of unemployment were, and how the length of spells varied with worker characteristics. Such information would

not only help discriminate between possible causes of unemployment, but would also cast some light on the propensity of unemployment to unify or divide the working class in its attitude toward radical change.

For most of the 1920's and thirties, the German Ministry of Labor published monthly reports that allow two sorts of rough estimation of the average completed duration of unemployment spells (ACD). The first method utilizes the same data on stocks and flows of job-seekers that were drawn on in the creation of inflow and outflow probabilities.<sup>4</sup> If a labor market is in a steady state--inflows to and outflows from unemployment are constant and equal, and the degree of duration-relevant heterogeneity of the unemployed is constant--the ACD is given by the stock divided by either the inflow or outflow rate.<sup>5</sup> The inter-war German labor

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<sup>4</sup>Using data on job-seekers to deduce characteristics of unemployment is of course problematic. But the problems entailed may not be very large. First, the vast majority of job-seekers were unemployed. And since the data is used only to calculate the relation between stocks and flows (see note 5), the presence of employed job-seekers will bias the results only if they made up a different share of the stock than of the flows. If employed job-seekers moved on and off the register more rapidly than the unemployed, estimates of average completed unemployment durations would be too low; if they moved less rapidly, the estimates for the unemployed would be too high. Whatever its direction, however, the bias seems unlikely to have been large.

<sup>5</sup>This result is familiar to many. Let the constant rate of inflow into unemployment be  $F$  per period. And let  $P_i$ ,  $i=1\dots$ , equal the probability of continuing in unemployment beyond period  $i$ , conditional upon having been unemployed in period  $i$ . Given this notation, it can be shown that:



market was clearly not in a steady state. Hence the series reported in Table 1.3 as ACDi and ACDo are "as if" constructions, showing what the ACD would have been in each year if the labor market had been in a steady state, with the stock equal to the average of the month's end figures and the flow rate equal to that of either inflow (ACDi) or outflow (ACDo). Each of the "as if" constructions is reported in two variants to allow for the effects of a change in the method of counting flows that occurred in October, 1932.<sup>6</sup>

- 1) The stock of unemployed at any given time is

$$\begin{aligned}
 & F \quad (\text{the current inflow}) \\
 & + p_1 F \quad (\text{those left from last periods inflow}) \\
 & + p_1 p_2 F \quad (\text{those left from the inflow of two periods ago}) + \dots \\
 & = F(1 + p_1 + p_1 p_2 + p_1 p_2 p_3 + \dots).
 \end{aligned}$$

- 2) The average completed duration of a spell in unemployment for members of any entry cohort is

$$\begin{aligned}
 & (1-p_1) * 1 \quad (\text{fraction } (1-p_1) \text{ of the cohort has spells of length 1}) \\
 & + p_1(1-p_2) * 2 \quad (\text{fraction } p_1(1-p_2) \text{ of the cohort has spells of length 2}) \\
 & + p_1 p_2(1-p_3) * 3 + \dots = (1 + p_1 + p_1 p_2 + p_1 p_2 p_3 + \dots)
 \end{aligned}$$

Hence if we combine 1) and 2), we see that Stock = F\*(ACD), or ACD = Stock/Flow.

<sup>6</sup>Beginning in October 1932, those workers placed by the labor exchanges in temporary positions were not counted again as inflows if they returned to the register at the end of their temporary placement. While this seems to have been a reasonable change in accounting procedure, it is not possible to adjust the pre-October 1932 flow data to be consistent with it. It is, however, possible to make an upper-bound estimate of what each month's flows would have been if the pre-change convention had been followed. Since the number of separate placements into temporary work are

