

*The Standard of Living and Employment
in Germany, 1850-1980:
An Overview*

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In any given society the standard of living of a large portion of the population is directly influenced by employment conditions. This is all the more true to the extent that the incorporation of the population into an economy characterized by the division of labour includes the mobilization of labour. After the middle of the nineteenth century this process can be observed in Germany as the number of people in positions and jobs governed by free-market forces began to outweigh the number of people who were self-employed and self-sufficient. Therefore it seems appropriate to examine the development of social welfare and of individual standards of living against the background of the population's employment, which can be viewed as the means for acquiring the material basis of subsistence.

Within the framework of the quality of life, labour is doubtless an important and meaningful component of human existence. The development of the quality of life is clearly reflected in concrete living conditions, which have changed significantly for the vast majority of the population in the last 150 years. The economic aspect of these changes is determined by shifts in welfare and in the standard of living, where the term welfare refers to more general economic relationships, while the standard of living is concerned with the conditions of individuals.

Yet, however one connects the ideas of the quality of life, welfare and the standard of living, it is clear that labour is of

fundamental importance in determining their realization.¹ Labour is here understood to be paid employment, that is to say, labour is paid at a rate determined by market forces on the basis of the organized utilization of labour power.² It is, however, clear that this definition of labour does not include all of its individual and social characteristics; it leaves out in particular the social and psychological functions of labour, but the definition proposed above nonetheless includes the decisive economic functions that are crucial for this study.

In economic terms, two aspects of labour can be differentiated. Labour is at once the means through which the material production of a society is accomplished, and, at the same time, it provides the economic basis for the securement of individual existence.³ Although the total production of goods and services measures the overall welfare of a society, the standard of living of particular individuals depends on a variety of factors. The amount of employment sets the essential parameters for the standard of living. However, this should not imply that more labour necessarily leads directly to a higher standard of living, rather, that the rewards accorded labour provide the opportunity for the acquisition of a share of a given society's material production. Labour doubtless also contains aspects of both deep and direct satisfaction and some amount of labour-related pain and suffering, which means that in their role as suppliers of labour individuals and private households are confronted with the problem of interest optimization.⁴

¹ See HEINZ-HERBERT NOLL, Soziale Indikatoren für Arbeitsmarkt und Beschäftigungsbedingungen, in: Wolfgang Zapf (ed.), *Lebensbedingungen in der Bundesrepublik. Sozialer Wandel und Wohlfahrtsentwicklung*, pp. 209-322, Frankfurt/M., 1977, p. 210.

² For a discussion of the term "labour" see TONI PIERENKEMPER, *Wirtschaftssoziologie. Eine problemorientierte Einführung*, Köln 1980, p. 88 ff., and of the term "occupation" ULRICH BECK AND MICHAEL BRATER, *Berufliche Arbeitsteilung und soziale Ungleichheit. Eine gesellschaftlich-historische Theorie der Berufe*, Frankfurt/M 1978.

³ HEINZ-HERBERT NOLL, *Soziale Indikatoren*, p. 211.

⁴ In the micro-economic theory of the household this problem concerns the apportionment of available time between labour and leisure. See ERNST HELMSTÄDTER, *Wirtschaftstheorie I*, München 1974, p. 86.

The size of the contribution made by "labour" to the standard of living can be measured by social indicators. Since the concept of the standard of living is concerned with the effect of employment on individuals, these factors have to be based on individual estimates of satisfaction with working and living conditions. Such survey data exist for the contemporary period⁵; however, similar opinion research results do not exist for earlier times and studies extending further into the past have to be content with cruder "objective" data.⁶ As a result long-term analyses of the standard of living cannot come to grips with the individual level; they have to be satisfied with global data from the economic whole. Complex relationships within the world of individual labour are thus reduced to variables in the social dimension of employment, which means that the products and income of self-employment labour are largely excluded. This seems to be justified because in the course of the general extension of market forces in developed societies the amount of employment obtained through the marketplace necessarily increases in relation to self-employment, until the former fully dominates the employment system.

Which variables in the employment system can serve as indicators for the individual standard of living? In attempting to measure individual welfare, Wolfgang Zapf lists nine dimensions, three of which, namely, real income, the length of the work week and unemployment are directly related to employment.⁷ These three clearly do not define a complete system of indicators⁸, but they do

⁵ I. g. HEINZ-HERBERT NOLL, 'Erwerbstätigkeit und Qualität des Arbeitslebens', in: Wolfgang Glatzer and Wolfgang Zapf (ed.), *Lebensqualität in der Bundesrepublik. Objektive Lebensbedingungen und subjektives Wohlbefinden*, Frankfurt/M 1984, pp. 97-123.

⁶ WOLFGANG ZAPF, 'Die Wohlfahrtsentwicklung in Deutschland seit der Mitte des 19. Jahrhunderts', in: Werner Conze and Rainer Lepsius (ed.), *Sozialgeschichte der Bundesrepublik Deutschland. Beiträge zum Kontinuitätsproblem*, Stuttgart 1982, p. 47.

⁷ *Ibid.*, p. 48.

⁸ A system of indicators is based on a system of social goals that are completely consistent, not redundant, operational and quantifiable. See HEINZ-HERBERT NOLL, *Soziale Indikatoren*, p. 235.

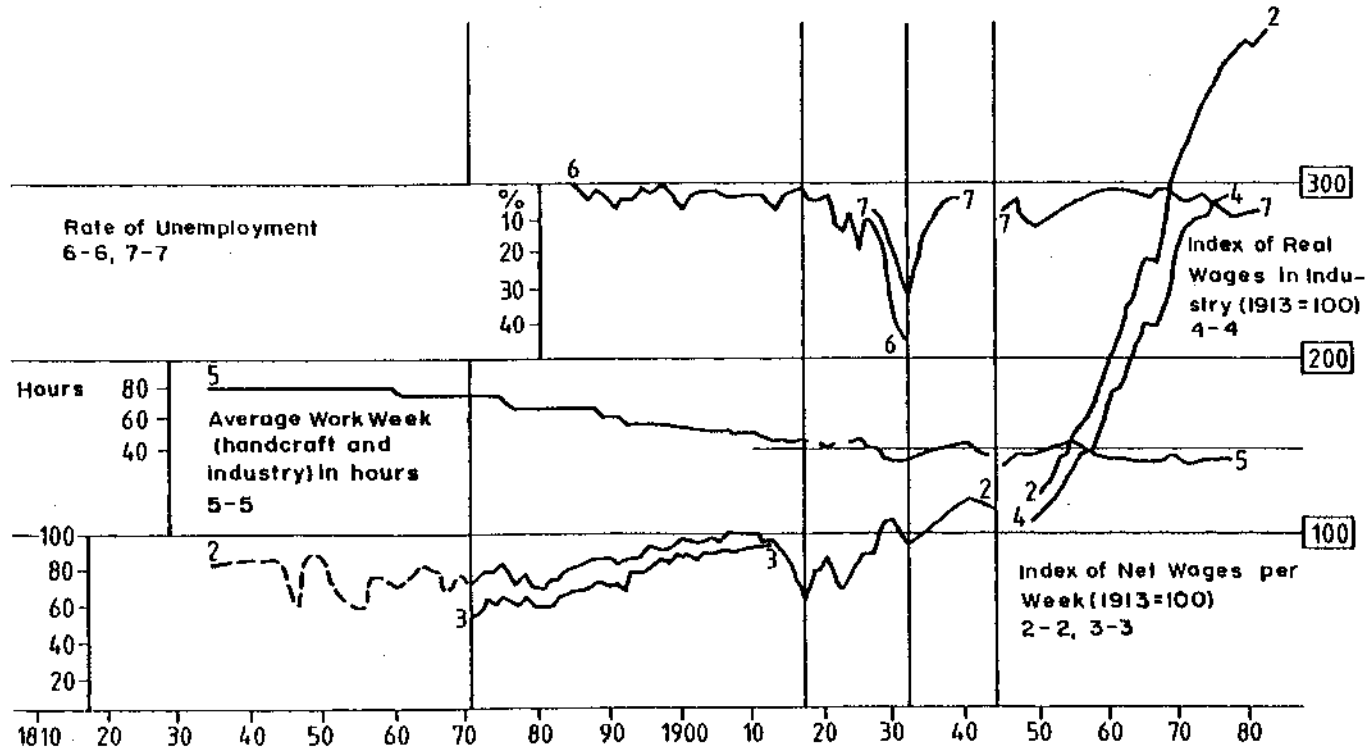
reveal important historical developments, and they show definite trends. A distinct rise in real income can be contrasted with an equally distinct fall in the average length of the work week; the rate of unemployment, however, exhibits no particular tendency. One can observe short-term swings away from full employment, which sometimes resulted in deep troughs.

The three indicators that show the effects of employment on social welfare and on the individual standard of living clearly relate to the two social variables that can be realized through the employment system, namely, a high standard of employment and an appropriate "quality" of employment. This high standard of employment is obviously connected with the quantitative aspects of employment, which aim at the fullest possible utilization of employment potential, whereas the quality of employment is logically related to the qualitative side of employment. These dimensions are naturally not exhausted by the three indicators mentioned above. Even if we limit ourselves to objective, "hard" data and omit reports of subjective estimates, other indicators can be developed.⁹

For the following discussion of employment as a macro-economic and macro-social influence on the standard of living, which is more readily thought of as a micro-social, individual category, we will orient ourselves to the differences between the quantitative and qualitative aspects of employment. The amount and structure of employment will determine the quantitative dimension, while income and its distribution will serve to measure the qualitative aspect. The availability of data makes it necessary to limit our considerations to a few indicators that deal mainly with industrial workers. The data unfortunately also fail to make im-

⁹ C.f. J.J. LEE, 'Labour and German Industrialization', in: *Cambridge Economic History of Europe*, vol. VII, pp. 442-491, Cambridge 1978, and TONI PIERENKEMPER, *Die Vermarktung von Arbeitskraft in Deutschland. Begriff, Tendenzen, Forschungsprobleme*, in: Klaus J. Bade (ed.), *Auswanderer-Wanderarbeiter-Gastarbeiter: Bevölkerung, Arbeitsmarkt und Wanderung in Deutschland seit der Mitte des 19. Jahrhunderts*, 2 Vols., Ostfildern 1984, vol. 1, pp. 139-178. Some actual examples HEINZ-HERBERT NOLL, *Soziale Indikatoren*, p. 236 ff.

Graph. I
 The Development of Welfare in Germany since the Mid-Nineteenth Century: Income, the
 Work Week and Unemployment



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portant distinctions within this category of workers, but they nevertheless provide a clear picture of developments in Germany since the middle of the nineteenth century.

The system of employment at the middle of the nineteenth century was only partially composed of free wage labour. Large sectors of the population were still bound to occupations that are more accurately described by picturing people filling "positions" than by "objective" factors such as wages or employment rates. It was only after the turn of the century and especially in the last third of the nineteenth century that free wage labour became the dominant form of employment for the German population.¹⁰ As a result reliable data about employment are available only for the period beginning in the 1870s.¹¹ Earlier developments can only be dealt with quantitatively on the basis of questionable estimates and generalizations or by making certain problematical assumptions.¹² For these reasons the tables and explanations covering the development of employment in Germany will be illustrated mainly for the last 100 years, with only passing references to conditions from mid-century.

The amount of employment can be determined through an overall employment ratio for the economy. The ratio indicates the proportion of the population that is employed or would like employment. This measure had the following values in Germany in the last 100 years:¹³

¹⁰ C.f. TONI PIERENKEMPER, *Die Vermarktung*.

¹¹ C.f. WOLFGANG ZAPF, *Die Wolfahrtentwicklung*, p. 50, especially footnote 5.

¹² An estimate of the development of real wages for the first decades of the nineteenth century is to be found in JÜRGEN KUCZYNSKI, *Darstellung der Lage der Arbeiter in Deutschland von 1789 bis 1949*, Berlin 1961 (Bd. 1 der Geschichte der Lage der Arbeiter unter dem Kapitalismus), p. 246. An attempt to determine the amount of unemployment is contained in WOLFGANG KÖLLMANN, *Bevölkerung und Arbeitskräftpotential in Deutschland 1815-1865*. For a study of the problem of pauperism see the same author's, *Bevölkerung in der industriellen Revolution*. Göttingen 1974.

¹³ C.f. DIETMAR PETZINA, *Materialien zum sozialen und wirtschaftlichen Wandel in Deutschland seit dem Ende des 19. Jahrhunderts*, in: Harald Winkel (ed.), *Wirtschaftliche Entwicklung und sozialer Wandel*, S. 297-342, Darmstadt 1981. For 1980 the average of 1976-1980 was taken from WERNER GLASTETTER u.a., *Die wirtschaftliche*

Table 1 - EMPLOYMENT RATE FOR THE GERMAN POPULATION, 1880-1882

| Year | Share of the employed as percent of total population | Year | Share of the employed as percent of total population |
|------|--|------|--|
| 1882 | 42.3 | 1939 | 50.8 |
| 1895 | 42.9 | 1950 | 47.0 |
| 1907 | 45.6 | 1961 | 46.1 |
| 1925 | 51.2 | 1967 | 44.5 |
| 1933 | 49.4 | 1980 | 42.8 |

The employment ratio does not, however, indicate the actual amount of employment because the term "employed" person includes both the employed and the unemployed. It would be necessary to have a measure of the extent to which employment potential is utilized. The rate of unemployment is an important indicator of the degree to which the employment potential is exhausted by the economy. The number of registered unemployed people divided by the number of all potentially employed defines the rate of unemployment.¹⁴ Fairly reliable information only becomes available with the development of official employment statistics in the 1920s; earlier statistics are mainly based on data from various associations, for example, labour unions, or on estimates.¹⁵ This means that there are several parallel sets of statistics for the period up to the World War II; these sometimes contain marked differences because they are based on various methods of collecting and analyzing the data. They nevertheless provide a picture of the extent to which the German economy used its

Entwicklung in der Bundesrepublik Deutschland 1950-1980. Befunde, Aspekte, Hintergründe, Frankfurt/M. 1983, p. 146.

¹⁴ See URSULA ENGLELEN-KEFER, *Beschäftigungspolitik. Eine problemorientierte Einführung*, Köln 1976, p. 72 ff, for a discussion of the problems of definition.

¹⁵ For a comprehensive treatment of the development of unemployment statistics see MANFRED LOHR, *Langfristige Entwicklungstendenzen der Arbeitslosigkeit in Deutschland*, in: ERICH WIEGAND AND WOLFGANG ZAPF (ed.), *Wandel der Lebensbedingungen in Deutschland. Wohlfahrtsentwicklung seit der Industrialisierung*, Frankfurt/M. 1982, pp. 237-333, especially pp. 241-277.

employment potential. Reliable official statistics have existed since 1950¹⁶

The following table shows the development for the period up to World War I:

Table 2 - UNEMPLOYMENT RATE IN GERMANY 1887-1913
(percent)

| Year | Kuczynski | | Year | Kuczynski | | Galenson und Zellner |
|------|-----------|-----|------|-----------|-----|----------------------|
| | I | II | | I | II | |
| 1887 | 0.2 | 1.0 | 1900 | 2.0 | 2.5 | |
| 1888 | 3.8 | 4.5 | 1901 | 6.7 | 7.2 | |
| 1889 | 0.2 | 1.0 | 1902 | 2.9 | 3.2 | |
| 1890 | 2.3 | 2.5 | 1903 | 2.7 | | 4.7 |
| 1891 | 3.9 | 4.5 | 1904 | 2.1 | | 3.6 |
| 1892 | 6.3 | 6.0 | 1905 | 1.6 | | 3.0 |
| 1893 | 2.8 | 3.5 | 1906 | 1.2 | | 2.7 |
| 1894 | 3.1 | 3.5 | 1907 | 1.6 | | 2.9 |
| 1895 | 2.8 | 3.5 | 1908 | 2.9 | | 4.4 |
| 1896 | 0.6 | 1.0 | 1909 | 2.8 | | 4.3 |
| 1897 | 1.2 | 1.5 | 1910 | 1.9 | | 3.5 |
| 1898 | 0.4 | 1.0 | 1911 | 1.9 | | 3.1 |
| 1899 | 1.2 | 1.5 | 1912 | 2.0 | | 3.2 |
| | | | 1913 | 2.9 | | 4.2 |

There are two versions of Kuczynski's statistics that merge in 1903, because he started using union data at that point. The figures for the period up to 1902 are based on estimates from job markets, for which the methods, sources and representativeness are difficult to duplicate and must therefore be used with a great deal of caution. The statistics from Galenson and Zellner are corrected union statistics.¹⁷

In general, the pre-1913 statistics of unemployment show wide fluctuations from year to year for the period before the turn of the century and a relative stabilization thereafter, at about 2% accord-

¹⁶ For a discussion of the origin and method of computation of the statistics in Table 2 see MANFRED LOHR, *Langfristige Entwicklungstendenzen*, especially Table 15, pp. 281-82, and TONI PIERENKEMPER, *Vermarktung*, Table 2, pp. 174-175.

¹⁷ Concerning individual computations see MANFRED LOHR, *Langfristige Entwicklungstendenzen*, p. 283.

ing to Kuczynski and at about 4% according to Galenson and Zellner. The outbreak of World War I is followed first by a sharp rise in the level of unemployment and then by a marked decline to the very low level of about 1%. This development was the result of an extraordinary mobilisation of labour in the course of building a war economy, which eliminated the free play of market forces through legal measures, which in turn means that the unemployment rate is not particularly useful information.¹⁸

There are again a variety of differing estimates of the annual unemployment rate for the years after 1920.

Table 3 - UNEMPLOYMENT RATE IN GERMANY, 1920-1939

| Year | Kuczynski | Svennilson | Galenson and Zeller | ADGB | Years | Kuczynski | Svennilson | Galenson and Zeller | ADGE |
|------|-----------|------------|---------------------|------|-------|-----------|------------|---------------------|------|
| 1920 | 3.8 | | 3.8 | | 1930 | 22.7 | 22.2 | 22.7 | 24.6 |
| 1921 | 2.5 | 2.9 | 2.8 | | 1931 | 34.7 | 33.7 | 34.3 | 36.4 |
| 1922 | 1.5 | 1.5 | 1.5 | | 1932 | 44.4 | 43.7 | 43.8 | |
| 1923 | 10.2 | 9.7 | 10.2 | | 1933 | | | 36.2 | |
| 1924 | 11.4 | 14.2 | 13.1 | 14.2 | 1934 | | | 20.5 | |
| 1925 | 8.3 | 6.9 | 6.8 | 7.1 | 1935 | | | 16.2 | |
| 1926 | 17.9 | 18.1 | 18.0 | 18.4 | 1936 | | | 12.0 | |
| 1927 | 8.8 | 8.8 | 8.8 | 9.3 | 1937 | | | 6.9 | |
| 1928 | 9.7 | 8.4 | 8.6 | 8.8 | 1938 | | | 3.2 | |
| 1929 | 14.6 | 13.1 | 13.3 | 13.7 | 1939 | | | 0.9 | |

The differences between the estimates, inasmuch as they are all based on the same raw data, appear to be relatively small. The overall picture shows an astonishingly low level of unemployment at the end of the war in spite of military demobilization. This figure continues to drop even during the inflationary period up to 1922. The collapse of the currency in 1923 brought with it a pronounced rise in the rate of unemployment, which then fluctuated at a high level until 1929. After 1930, as a result of the world-wide effects of

¹⁸ JÜRGEN KOCKA, *Klassengesellschaft in Krieg. Deutsche Sozialgeschichte 1914-1918*, Göttingen 1973, pp. 12 ff. and pp. 33 ff.

the Great Depression, the unemployment rate shot up to historically high levels, from which a decline began slowly, only picking up markedly after the mid-1930s, and reaching full employment again on the eve of World War II through rearmament.

The statistics for the war years show a decline similar to that of World War I as a result of armaments mobilization; but since market forces were again eliminated the unemployment rate can hardly be estimated in a meaningful way. Official statistics exist for the Federal Republic of Germany for the years after 1950.

Table 4 - UNEMPLOYMENT RATE IN GERMANY, 1946-1982

| Year | Galenson and Zeller | Council of Economic Advisors (Sachverständigenrat) | Year | Council of Economic Advisors (Sachverständigenrat) |
|------|---------------------|--|------|--|
| 1946 | 7.5 | | 1965 | 0.7 |
| 1947 | 5.0 | | 1966 | 0.7 |
| 1948 | 4.8 | | 1967 | 2.1 |
| 1949 | 8.3 | | 1968 | 1.5 |
| 1950 | 10.2 | 10.4 | 1969 | 0.8 |
| 1951 | | 9.1 | 1970 | 0.7 |
| 1952 | | 8.5 | 1971 | 0.8 |
| 1953 | | 7.6 | 1972 | 1.1 |
| 1954 | | 7.1 | 1973 | 1.2 |
| 1955 | | 5.2 | 1974 | 2.5 |
| 1956 | | 4.2 | 1975 | 4.7 |
| 1957 | | 3.5 | 1976 | 4.6 |
| 1958 | | 3.6 | 1977 | 4.5 |
| 1959 | | 2.5 | 1978 | 4.3 |
| 1960 | | 1.3 | 1979 | 3.7 |
| 1961 | | | 1980 | 3.7 |
| 1962 | | 0.7 | 1981 | 5.3 |
| 1963 | | 0.9 | 1982 | 7.4 |
| 1964 | | 0.8 | | |

There was a pronounced reduction of unemployment from a relatively high level at the beginning of the 1950s to the level of full employment in the 1960s. The unemployment rate in the FRG stayed at this level for more than a decade. There has been an increase, at first a gradual one, since the beginning of the 1970s, which led to a noteworthy underutilization of employment poten-

tial in the 1980s. This is expressed in an unemployment rate in the neighbourhood of 10%.

Taken together, the values of the rates of employment and unemployment offer a preliminary overview of the amount of labour and employment in Germany. A major disadvantage of these two indicators is their global nature; a view of the economy in general does not allow conclusions about the standard of living of individuals. It is necessary — and possible — to supplement these data with statistics concerning the structure of employment. The following dimensions can be used:

- employment by occupational categories;
- position (level) within an occupation;
- age;
- sex.

One can make such an analysis based on official employment surveys. They present the following overview of employment by sectors:¹⁹

Table 5 - PERCENTAGE OF EMPLOYMENT BY ECONOMIC CATEGORY GERMANY, 1882-1978

| Year | Agriculture and forestry | Industry and handicraft | Services |
|------|--------------------------|-------------------------|----------|
| 1882 | 42.2 | 35.6 | 22.2 |
| 1895 | 36.6 | 38.9 | 24.8 |
| 1907 | 34.0 | 40.0 | 26.0 |
| 1925 | 30.4 | 42.2 | 27.4 |
| 1933 | 28.8 | 40.6 | 30.6 |
| 1939 | 25.9 | 42.3 | 31.8 |
| 1950 | 22.1 | 44.7 | 33.2 |
| 1961 | 13.5 | 48.7 | 37.8 |
| 1967 | 10.0 | 47.5 | 42.5 |
| 1978 | 6.4 | 45.1 | 48.5 |

The shifts in the percentage of employment in the three most basic occupational categories show that the typical developments in

¹⁹ See DIETMAR PETZINA, *Materialien*, p. 311, and TONI PIERENKEMPER, *Vermarktung*, Table 1, p. 173.

industrial countries also characterize the German case, namely, a rapid decline in agricultural employment, a moderate increase in the percentage of the population employed in industry and hand-crafts and a dramatic rise in service occupations.²⁰ Still, a closer examination shows that these overall developments obscure numerous changes within occupational categories. In the service category, for example, the percentage of those employed in trade and transportation grew along with the proportion of white-collar employees in both the public and private sectors, whereas the percentage of domestic servants sank rapidly. This development reflects both the absolute decline in the number of domestic servants since the end of the nineteenth century and a reduction of the proportion of the population employed in family businesses during the twentieth century. The enormous growth in the proportion of white collar employees also only becomes apparent when one further differentiates the categories mentioned above.²¹

Table 6 - PERCENTAGE OF EMPLOYMENT BY OCCUPATIONAL CATEGORY, GERMANY, 1882-1979

| Year | Self-employed | Family members in family business | White-collar employees | Blue-collar workers | Domestic servants |
|------|---------------|---|---------------------------|------------------------|----------------------|
| 1895 | 27.5 | (9.6) | 5.2 | 50.4 | 7.3 |
| 1907 | 22.0 | (15.6) | 7.5 | 49.2 | 5.2 |
| 1925 | 15.7 | 17.0 | 17.3 | 45.8 | 4.2 |
| 1933 | 16.2 | 16.5 | 17.4 | 46.1 | 3.8 |
| 1939 | 14.0 | 16.4 | 19.0 | 46.7 | 3.9 |
| 1950 | 14.6 | 13.5 | 21.1 | | 50.5 |
| 1961 | 12.2 | 10.0 | 29.0 | | 48.5 |
| 1967 | 11.1 | 7.7 | 33.0 | | 48.2 |
| 1978 | 8.8 | 4.0 | 44.8 | | 42.3 |

According to these figures the percentage of self-employed people

²⁰ A summary of sector theory can be found in TONI PIERENKEMPER, *Wirtschaftssoziologie. Eine problemorientierte Einführung*, Köln 1980, pp. 85 ff. and pp. 235 ff., and some criticism *ibid.*, *Allokationsbedingungen in Arbeitsmarkt. Das Beispiel des Arbeitsmarktes für Angestelltenberufe, 1880-1913*, Opladen 1982, pp. 124.

²¹ See DIETMAR PETZINA, *Materialien*, p. 311.

and of family members helping in the family business declined continuously²², while the percentage of white-collar employees rose markedly. The proportion of blue-collar workers levelled off at about 50% with a slightly falling tendency, while the category domestic workers disappeared almost completely. Fundamental changes in the structure of the economy are thus reflected in shifts in the size of occupational categories.

The age structure of employed people remained relatively stable during the nineteenth century up to 1913; only after World War I did declining birth rates appear as a progressive increase in the proportion of middle-aged people in the work-force.²³ This development has continued up to the present and it has been strengthened by an increase in the amount of time young people spend in school and training programme as well as by a reduction in the age of retirement. Both shifts reinforce the dominance of the middle-aged in the employment system.

Before 1913 more than 60% of all men but only 30% of women were employed.²⁴ Owing to the fact that women working in a family business are statistically underrepresented, these figures must be viewed with caution. An appropriate consideration of occupational categories would not show that women increasingly entered the work force during the course of industrialization but that the form of their employment shifted from family-based occupations to those kinds of employment regulated by the market place.²⁵

²² The figures for proportion of family members helping out in family businesses before 1913, especially the figure for 1895, require correction owing to systematic undercounting of this occupational category in occupational censuses. For an account of this problem see ANGELIKA WILLMS, *Die Erforschung sozialer Tatsachen mit amtlichen Statistiken*, Arbeitspapier Nr. 39, VASMA, Universität Mannheim 1983, pp. 8 ff., and Table 2 and 3, p. 22.

²³ J.J. LEE, *Labour*, p. 443.

²⁴ *Ibid.*, For the rates of employment by sex, p. 444. If one omits assisting family members the figures only drop to 56-57% for men but to about 20% for women.

²⁵ For a comprehensive discussion see ANGELIKA WILLMS, *Grundzüge der Entwicklung der Frauenarbeit von 1880 bis 1980*, in: Walter Müller u.a., *Strukturwandel der Frauenarbeit, 1880-1980*, Frankfurt/M. 1983, pp. 25-54.

These few indicators provide a picture of the extent and structure of employment in Germany to the degree it can be sketched in quantitative terms. What remains is to look at the qualitative dimensions, which, as discussed above, are indicated by the statistics for the work week and for income.

As a result of marked increases since the beginning of the century the number of hours in the average work week in Germany peaked in the middle of the nineteenth century and showed a continuous falling tendency thereafter.²⁶ One could find regional, occupational and, most importantly, sectoral differences, but the general trend would nowhere be reversed.

Table 7 - THE DECLINE OF THE HOURS WORKED IN GERMANY, 1860-1913

| Period | Average work day for industrial workers (in hours) | Average work week for industrial workers (in hours) |
|------------|--|---|
| about 1860 | 14-16 | 80-85 |
| 1861-1870 | 12-14 | 78 |
| 1871-1880 | 12 | 72 |
| 1881-1890 | 11 | 66 |
| 1891-1895 | 10.5-11 | 63-65 |
| 1896-1900 | 10.5 | 61-63 |
| 1901-1905 | 10-10.5 | 59-61 |
| 1906-1909 | 10-10.5 | 58-60 |
| 1910-1914 | 10 | 54-60 |

This trend continued in the twentieth century, although there were slight increases in the work week in the Nazi period, especially during World War II. In the post-war period the gradual reduction in the average work week has continued; at present it is most evident in the controversy over the 35 hour week.²⁷

²⁶ Concerning the differing estimates of the development of the work week see HILDEGARD STEINLER AND ERICH WIEGAND, *Zur Entwicklung der Arbeitszeitgesetzgebung und der Arbeitszeit in Deutschland seit der Industrialisierung*, in: Erich Wiegand and Wolfgang Zapf (ed.), *Wandel*, pp. 17-63, especially p. 45.

²⁷ For the figures after 1919, see *ibid.*, p. 52.

Table 8 - THE DECLINE OF THE WORK WEEK IN GERMANY, 1913-1919

| Year | Average work week for industrial workers (in hours) | Year | Average work week for industrial workers (in hours) | Year | Average work week for industrial workers (in hours) |
|------|---|------|---|------|---|
| 1919 | 48 | 1939 | 48.6 | 1960 | 45.6 |
| 1920 | 48 | 1940 | 50.1 | 1961 | 45.5 |
| 1921 | 48 | 1941 | 50.1 | 1962 | 44.9 |
| 1922 | 48 | 1942 | 49.2 | 1963 | 44.7 |
| 1923 | 48 | 1943 | 48.0 | 1964 | 44.1 |
| 1924 | 50.4 | 1944 | 48.3 | 1965 | 44.3 |
| 1925 | | 1945 | | 1966 | 43.9 |
| 1926 | | 1946 | 39.5 | 1967 | 42.3 |
| 1927 | 49.9 | 1947 | 39.1 | 1968 | 43.3 |
| 1928 | 48.9 | 1948 | 42.4 | 1969 | 44.0 |
| 1929 | 46.0 | 1949 | 46.5 | 1970 | 44.0 |
| 1930 | 44.2 | 1950 | 48.0 | 1971 | 43.2 |
| 1931 | 42.5 | 1951 | 47.4 | 1972 | 42.8 |
| 1932 | 41.5 | 1952 | 47.5 | 1973 | 42.8 |
| 1933 | 43.0 | 1953 | 47.9 | 1974 | 41.9 |
| 1934 | 44.6 | 1954 | 48.6 | 1975 | 40.5 |
| 1935 | 44.5 | 1955 | 48.8 | 1976 | 41.6 |
| 1936 | 46.7 | 1956 | 48.0 | 1977 | 41.7 |
| 1937 | 47.6 | 1957 | 46.5 | 1978 | 41.6 |
| 1938 | 47.9 | 1958 | 45.7 | 1979 | 41.9 |
| | | 1959 | 45.6 | 1980 | 41.6 |

In spite of the general tendency towards a shorter work week (its decline by nearly 50% since the middle of the nineteenth century is shown in Tables 7 and 8), the overall development of wage earners' income in this period has been positive. The selection of the development of real wages as a measure of the income level reveals the following picture:²⁸

²⁸ For a discussion of the different estimates of nominal income and the indices of the cost of living, as well as the related problems see ERICH WIEGAND, Zur historischen Entwicklung der Löhne und der Lebenshaltungskosten in Deutschland, in: *ibid.* and Wolfgang Zapf (eds.), *Wandel*, pp. 65-153, and Toni Pierenkemper, *Vermarktung*, Table 3, pp. 174-175.

Table 9 - THE GROWTH OF REAL WAGES IN GERMANY, 1950-19
(1913 = 100)

| Year | Kuczynski | Year | Kuczynski | Bry | Desai | Orsagh | Year | Kuczynski | Bry | Desai | Orsagh |
|------|-----------|------|-----------|-----|-------|--------|------|-----------|-----|-------|--------|
| 1850 | 87 | 1870 | 76 | | | | 1890 | 91 | 87 | 76 | 73 |
| 1851 | 79 | 1871 | 75 | 74 | 56 | 52 | 1891 | 90 | 84 | 74 | 70 |
| 1852 | 67 | 1872 | 79 | 79 | 63 | 59 | 1892 | 91 | 86 | 75 | 71 |
| 1853 | 63 | 1873 | 78 | 79 | 68 | 64 | 1893 | 92 | 87 | 80 | 78 |
| 1854 | 58 | 1874 | 77 | 78 | 66 | 61 | 1894 | 93 | 88 | 79 | 78 |
| 1855 | 55 | 1875 | 85 | 84 | 69 | 64 | 1895 | 94 | 89 | 80 | 78 |
| 1856 | 58 | 1876 | 81 | 78 | 66 | 62 | 1896 | 96 | 97 | 94 | 82 |
| 1857 | 73 | 1877 | 78 | 73 | 62 | 60 | 1897 | 96 | 96 | 92 | 86 |
| 1858 | 75 | 1878 | 83 | 77 | 67 | 65 | 1898 | 95 | 93 | 87 | 85 |
| 1859 | 73 | 1879 | 82 | 74 | 66 | 64 | 1899 | 98 | 96 | 93 | 89 |
| 1860 | 71 | 1880 | 78 | 70 | 63 | 61 | 1900 | 99 | 98 | 88 | 87 |
| 1861 | 60 | 1881 | 77 | 70 | 64 | 61 | 1901 | 97 | 95 | 90 | 89 |
| 1862 | 70 | 1882 | 80 | 75 | 69 | 66 | 1902 | 97 | 95 | 89 | 88 |
| 1863 | 76 | 1883 | 80 | 75 | 69 | 65 | 1903 | 98 | 96 | 90 | 89 |
| 1864 | 82 | 1884 | 85 | 80 | 71 | 68 | 1904 | 99 | 97 | 92 | 91 |
| 1865 | 78 | 1885 | 88 | 83 | 71 | 67 | 1905 | 98 | 98 | 91 | 89 |
| 1866 | 77 | 1886 | 90 | 85 | 71 | 68 | 1906 | 97 | 97 | 93 | 92 |
| 1867 | 66 | 1887 | 91 | 87 | 77 | 73 | 1907 | 100 | 101 | 94 | 93 |
| 1868 | 68 | 1888 | 92 | 89 | 76 | 72 | 1908 | 100 | 100 | 94 | 93 |
| 1869 | 75 | 1889 | 92 | 88 | 72 | 70 | 1909 | 99 | 99 | 92 | 92 |
| | | | | | | | 1910 | 98 | 99 | 94 | 93 |
| | | | | | | | 1911 | 98 | 98 | 96 | 95 |
| | | | | | | | 1912 | 96 | 96 | 96 | 96 |
| | | | | | | | 1913 | 100 | 100 | 100 | 100 |

The 1850's and 1860's show sharp upward and downward fluctuations in real wages. At first they drop sharply from an impressively high level at mid-century, bottoming out in 1855. This is followed by movement towards a new peak in 1864, which is nevertheless interrupted by strong fluctuations. After 1870 the development stabilizes itself and continues with a distinct rising tendency that reached a new peak at the turn of the century. Incomes stagnated thereafter, but at a relatively high level until the end of the period above.²⁹

Insufficient data and the problem of adjusting for inflation make it impossible to provide a quantitative account of real wages

²⁹ Regarding the agreement of Kuczynski's and Bry's indices on the one hand Desai's and Orsagh's on the other, in addition to a discussion of the differences between the two groups see ERICH WIEGAND, *Zur historischen Entwicklung*, especially pp. 98-102.

for the period immediately after the war up through the years of inflationary crisis. Relatively reliable statistics are only available again starting in 1924.³⁰

Table 10 - THE GROWTH OF REAL WAGES IN GERMANY, 1924-1944

| Year | Kuczynski | Skiba and Adam (1925 = 100) | Brumbach and König |
|------|-----------|--------------------------------------|-----------------------|
| 1924 | 79 | — | 88 |
| 1925 | 91 | 100 | 102 |
| 1926 | 97 | 104 | 104 |
| 1927 | 97 | 113 | 106 |
| 1928 | 102 | 125 | 112 |
| 1929 | 105 | 126 | 117 |
| 1930 | 110 | 121 | 123 |
| 1931 | 114 | 116 | 123 |
| 1932 | 110 | 108 | 120 |
| 1933 | 108 | 113 | 118 |
| 1934 | 110 | 118 | 116 |
| 1935 | 114 | 119 | 117 |
| 1936 | 118 | 122 | 119 |
| 1937 | 123 | 126 | 122 |
| 1938 | — | 131 | 128 |
| 1939 | — | 136 | 132 |
| 1940 | — | 135 | — |
| 1941 | — | 141 | — |
| 1942 | — | 138 | — |
| 1943 | — | 137 | — |
| 1944 | — | 133 | — |

The statistics show a distinct drop in real wages compared with the pre-war period, but that level is reached again within a few years. However, only after the crisis of the early 1930's do real wages climb noticeable above the pre-war level.

The development of real wages after 1950 exhibits an unbroken

³⁰ See ERICH WIEGAND, *Zur historischen Entwicklung*, p. 144, and TONI PIERENKEMPER, *Vermarktung*, Tab. 3, pp. 174-175. Skiba and Adam's index is based on the figure 1925=100, but it barely differs from the values given by Grumbach and König, and seems therefore to be of only limited usefulness for direct comparisons.

upward tendency, which meant that in the early 1950's real wages could climb more in one year than it had in whole decades earlier.³¹

Table 11 - THE GROWTH OF REAL WAGES IN GERMANY, 1950-1975

| Year | Grumbach and König (1913-100) | Skiba and Adam (1925-100) | Our computation (1966-100) | Year | Skiba and Adam (1925-100) | Our computation (1966-100) |
|------|--|------------------------------------|----------------------------------|------|------------------------------------|----------------------------------|
| 1950 | 126 | 134 | — | 1965 | 294 | 97 |
| 1951 | 132 | 142 | — | 1966 | 300 | 100 |
| 1952 | 138 | 149 | — | 1967 | 294 | 102 |
| 1953 | 146 | 160 | — | 1968 | 309 | 104 |
| 1954 | 153 | 166 | — | 1969 | 334 | 110 |
| 1955 | — | 175 | — | 1970 | 366 | 117 |
| 1956 | — | 184 | — | 1971 | — | 121 |
| 1957 | — | 190 | 65 | 1972 | — | 125 |
| 1958 | — | 195 | 67 | 1973 | — | 130 |
| 1959 | — | 203 | 69 | 1974 | — | 134 |
| 1960 | — | 219 | 74 | 1975 | — | 135 |
| 1961 | — | 236 | 78 | 1976 | — | 139 |
| 1962 | — | 252 | 83 | 1977 | — | 144 |
| 1963 | — | 261 | 87 | 1978 | — | 149 |
| 1964 | — | 275 | 92 | 1979 | — | — |

These data provide an adequate characterization of the development of real wages since the middle of the nineteenth century. The result is, naturally, a general overview, as was the case with the picture provided of the size and extent of employment, that would allow for a great deal of differentiation. Exactly this sort of additional information would be necessary for determining individual standards of living.³² There are various reasons why this cannot be attempted here; most importantly, it would far exceed the limits set for this paper. Nevertheless, one addition is possible; it problematizes income not as it is acquired as real wages but as it is disposed of and distributed.

There are two principal ways of viewing the disposal of earned

³¹ TONI PIERENKEMPER, *Vermarktung*, Table 3, pp. 174-175, and ERICH WIEGAND, *Zur historischen Entwicklung*, p. 144.

³² Concerning the possibility of generating such information see HEINZ-HERBERT NOLL, *Soziale Indikatoren*, pp. 236-307, and *ibid.*, *Erwerbstätigkeit*, also J.J. LEE, *Labour*, *op. cit.*

income³³; one can examine it in macro-economic terms by relating income to the population or to the number of employed people, or one can look at individual household accounts from various occupational categories. The estimates compiled by Walter G. Hoffmann and his co-workers within the framework of their research into the expenditure side of GNP for the period since 1850 provide an initial point of departure for the determination of per capita expenditures in Germany, particularly of private expenditures³⁴ Real private expenditure measured in terms of 1913 constant prices grew more than sixfold between 1850 and 1959, or more than fourfold if one takes population developments into account. The use of household accounts to measure the development of expenditures also shows a significant expansion of possible expenditures, even for the lower classes, in the twentieth century.³⁵

The relationship between earned and unearned income based upon various estimates for different periods does not present a uniform picture.³⁶ One would suspect an increase in the rate of earned income after 1870, stagnation after 1895, the persistence of a high level during the crisis of the inter-war period and, to begin, stagnation at a somewhat higher level until the 1960s and a slight rise thereafter.³⁷ The distribution of personal income in Germany in the nineteenth century shows increasing and after the turn of the century decreasing inequality.³⁸ The disparity of income between various occupational groups also lessened.

³³ A summary of some of the data concerning these two approaches can be found in GERD HOHORST u.a., *Sozialgeschichtliches Arbeitsbuch II. Materialien zur Statistik des Kaiserreiches 1870-1914*, München 1978, pp. 112 ff.

³⁴ WALTHER G. HOFFMANN u.a., *Das Wachstum der deutschen Wirtschaft seit der Mitte des 19. Jahrhunderts*, Berlin 1965, pp. 617 ff., pp. 667 ff.

³⁵ ERICH WIEGAND, *Die Entwicklung der Einnahmen — und Ausgabenstruktur privater Haushalte seit der Jahrhundertwende*, in: *ibid.* and Wolfgang Zapf (eds.), *Wandel*, pp. 155-235, gives a good overview.

³⁶ See TONI PIERENKEMPER, *Vermarktung*, Table 4.

³⁷ Information concerning the distribution of income see also DIETMAR PETZINA, *Materialien*, pp. 330 ff.

³⁸ FRANZ GRUMBACH, *Statistische Untersuchung über die Entwicklung der Einkommensverteilung in Deutschland*, Diss. Münster, 1954, Abb. 3.

What sort of picture of social welfare and individual standards of living do the statistics of employment presented above paint? The development was clearly not characterized by uniform improvement in the standard of living; there were, rather, numerous interruptions and reverses. For this reason, it seems appropriate to divide the larger period into four long phases, during which, however, some differing tendencies were in motion.³⁹

The first phase in the development of the standard of living since the middle of the nineteenth century reaches from the pre-industrial era to the end of the 1870s. The years between 1835/40 and 1875/80 can be described as a period of massive suffering for large parts of the population, in particular for the working class.⁴⁰ The few occupational indicators available for this period point to a historically unique length of the work week i.e. to an extremely high average number of hours, that was never again reached since that time. Moreover, initial sharp falls in real wages were not compensated for by the subsequent gradual rising trend; it hardly made up for the loss of income experienced earlier. Massive restructuring of the whole occupational system no doubt caused a destabilization in employment relationships, even though exact data, for example, unemployment statistics, are unavailable. The results of this fundamental restructuring, coupled with rapid population growth that shows up in the occupational system, are, on the one hand, an increase in surplus agrarian population, which would later serve as the basis for migration both to industrial centres and overseas, and, on the other hand, the formation of an urban proletariat that was fed not only from rural migration but mainly by the arrival of craftsmen, the employees of pre-industrial manufacturing enterprises and day labourers, along with their

³⁹ See WOLFGANG ZAPP, *Die Wohlfahrtsentwicklung*, pp. 60 ff., and for a different view MANFRED LOHR, *Langfristige Entwicklungstendenzen*, pp. 285 ff. For a more elaborate periodisation HEINZ-HERBERT NOLL, *Soziale Indikatoren*, p. 227 ff.

⁴⁰ For a view of the variety of occupational groups within the working class and the development of their standard of living see JÜRGEN KOCKA, *Lohnarbeit und Klassenbildung. Arbeiter und Arbeiterbewegung in Deutschland 1800-1875*, Berlin 1983, pp. 73 ff.

wives and children. In addition, increases in the number of people seeking employment constantly outstripped the growth in jobs, which meant that underutilization of employment potential rose, too.⁴¹

The phase from the end of the 1870's up to World War I can be described with some justification as a period of distinct improvement in the standard of living, which is why it seems like "the good old days" when viewed in retrospect.⁴² This is, by the way, quite a contrast to the overall economic picture that has been characterized as a "great depression".⁴³

Real wages rose markedly in the period while the work week shortened and unemployment remained relatively low. At the same time rapid changes in the occupational structure continued with the result that the framework of a modern industrial society began to be visible. A majority of the employed was to be found in industry and handicrafts by 1907, and workers constituted the most significant group of the employed. Real wages climbed from an index value of 80 to 100 at the same time as the average work week fell from over 70 hours to between 54 and 60. Since it rarely rose above 2%, the unemployment rate indicates a nearly complete utilization of employment potential.⁴⁴

The third phase in the development of the standard of living and of occupational conditions in Germany since the middle of the nineteenth century, the period from 1914 to 1950, can be characterized by listing its crises and catastrophes: World War I, inflation, the Great Depression, National Socialism, World War II, destruction and defeat.⁴⁵ These events are naturally reflected in employ-

⁴¹ For labour market conditions in this period and a discussion of the available data see TONI PIERENKEMPER, *Vermarktung*, pp. 150-154.

⁴² E.g. WOLFGANG ZAFF, *Die Wohlfahrtsentwicklung*, p. 60.

⁴³ See, for example, HANS ROSENBERG, *Große Depression und Bismarckzeit, Wirtschaftsablauf, Gesellschaft und Politik in Mitteleuropa*, Frankfurt/M. 1976, which is a peerless characterization of the period.

⁴⁴ For a more detailed view of conditions on the labour market see TONI PIERENKEMPER, *Vermarktung*, pp. 154-161.

⁴⁵ See WOLFGANG ZAFF, *Wohlfahrtsentwicklung*, p. 60.

ment indicators. The unemployment rate remained high for the whole period, mostly over 10% between 1923 and 1936, and it reached a peak over 30% in the Great Depression of the 1930's. The reduction of the work week also did not continue without interruption. Average weekly hours rose slightly after the mid-1920's, dropped sharply in part as a result of massive unemployment and then rose again distinctly in connection with the regulation of labour during the era of National Socialism. The level reached during the war meant a work week that had been normal for a time thirty years earlier.⁴⁶

The crises of the wars and the inter-war years also affected the development of real wages. After the inflation real wages sank sharply, and they just barely achieved the 1913 level by the end of the 1920's. Notwithstanding high unemployment in the course of the 1930's real wages rose modestly, contrary to what one would expect, and the trend continued throughout World War II. So in spite of the numerous crises and catastrophes there was a continuous improvement in real wages during the whole period, though only from the level of 1920, which was distinctly below that of 1913.

Developments in employment and the standard of living in the FRG in the period since 1950 suggest that the description "economic miracle" (*Wirtschaftswunder*) was justified, even though the prospect for the near future are controversial.⁴⁷ The 1950's doubtless saw a rapid reduction of the initially high level of unemployment, which was followed by an era of full employment that extended well into the 1970s. It was only at the end of the 1970's and the beginning of the 1980's that a threatening rise in unemployment occurred, conditioned by both business factors and by structural and demographic changes. The whole period witnessed

⁴⁶ Again regarding the conditions on the labor market see TONI PIERENKEMPER, *Vermarktung*, pp. 161-168.

⁴⁷ Concerning the development of the labour market in this period see HEINZ-HERBERT NOLL, *Soziale Indikatoren*, pp. 227 ff.

a continuous fall in the average work week of industrial workers, a development that is apparently not yet over as the present controversy over further reductions in the work week shows. This drop in the work week was coupled with a unique increase in real wages, which increased substantially during the period. All these factors doubtless point to a distinct improvement in the standard of living in FRG since the World War II.

If one looks at the development of employment in Germany over the whole period, its influence on the standard of living can be summarized as follows:

- at the middle of the nineteenth century the standard of living stood at an extremely low level;

- during the imperial period the standard of living rose more or less continuously to a distinctly higher level by the eve of World War I;

- some improvement is observable during the period of crisis and catastrophe in the first half of the twentieth century;

- only with the “economic miracle” of the 1950s did the standard of living in Germany reach the level that can be labelled an affluent society — a condition that is again threatened by the present employment crisis.

