VI The Full Employment Rate of Unemployment

The most controversial issue in use-of-potential analysis is the judgement on the degree of unemployment which should be accepted as "normal" in "full employment" conditions, either because it is "voluntary" or necessary for efficient functioning of the economy. "Normality" may change over time for institutional or demographic reasons which are unconnected with business cycle developments, e.g. higher unemployment benefits may permit people to be more choosy about a prospective job and lengthen search time, or the size of the youth cohort may swell in echo of a previous baby boom. Cyclical developments may have a ratchet effect, in that they induce labour slack which would have been "avoidable" if the recession had not occurred, but which is not "recuperable" *ex post.* Even more fundamental objections to the notion of a full employment unemployment target[9] are raised by non-Keynesian approaches to stabilisation policy. This whole range of issues is surveyed in this section.

Traditionally unemployment has often been broken down into seasonal, frictional, structural and demand-deficient components, and this continues to be a reasonable breakdown. Sometimes demand-deficient unemployment is called "cyclical," but "demand-deficient" is preferred here because the experience of the 1970s as well as that of prewar years shows clearly that demand deficient unemployment may extend well beyond the recession phase of business cycles. The first three types of unemployment can be regarded as a normal feature of the labour market and when added together constitute the "full employment rate of unemployment."

The Beveridge Definition of Full Employment

Full employment norms were first quantified by Beveridge in his wartime report which had such a major impact on postwar macro-economic policy goals and instruments.[10] Beveridge's theoretical ideas in 1944 were largely based on those of Keynes, and his main aim was to eliminate demand-deficient unemployment by fiscal policy. His postulated full employment rate of unemployment (FEUR) was 3 percent of the labour force. This figure was regarded as ambitious at the time and was based on rather pragmatic guesswork. In his text (pp. 127–129), Beveridge allocates 1 percent unemployment to seasonal factors, 1 percent to frictional, and 1 percent to fluctuations in international trade. In fact, the latter component can be considered either as part of structural unemployment or as an element of cyclical unemployment. Beveridge's taxonomy of unemployment in the text of his book is rather puzzling because it differs from the treatment in his Appendix D (pp. 408–410) where he mentions structural unemployment, but not unemployment due to fluctuations in international trade. His original 1909 study of unemployment which was mainly concerned with the excessive seasonal and frictional variations which might be

[9]See F. T. Blackaby, The Target Rate of Unemployment, in G. D. N. Worswick, ed., *The Concept and Measurement of Unemployment,* Allen and Unwin, London, 1976 for a review of British official policy targets. In France and Germany official policy has generally not included explicit unemployment targets.

[10]See W. H. Beveridge, *Full Employment in A Free Society,* Allen and Unwin, London, 1944.

mitigated by the creation of Labour Exchanges, also had essentially the same classification as his 1944 Appendix D.[11]

Keynes' Concern with Involuntary Unemployment and Fuzziness on Voluntary Unemployment

Keynes in his analysis of unemployment was not concerned with specific FEUR targets. His aim was to provide a theoretical explanation of "involuntary" unemployment, the existence of which neoclassical economists had denied. Pigou for instance had argued that unemployment was voluntary and was caused by people holding out for unrealistically high wages, rather than by deficiency of aggregate demand. In the 1930s, unemployment was so high that detailed argument about the components of FEUR did not seem too relevant. As a result, the demarcation between voluntary and involuntary unemployment is embarrassingly vague in Keynes' analysis, as was recently admitted by Lord Kahn, Keynes' disciple.[12]

Search Theories of Frictional Unemployment

This gap in unemployment analysis has been filled in recent years by the new microeconomics of unemployment, which can be viewed either as a complement to neo-classical analysis, in that it explains why unemployment is positive even in a long run equilibrium situation, or as filling the gap in Keynesian analysis (which Beveridge filled on a purely pragmatic basis) because it identifies that portion of unemployment which policy should accept.

The new microeconomics is mainly concerned with the rationality of job search unemployment, in that it explains why unemployed people do not take the first job offered, why younger people have higher unemployment rates than older people etc.[13] It explains why more generous unemployment insurance (in the sense of wider coverage or an increase in the net benefit/net wage position) reduces the cost of job search, and leads to longer spells and higher rates of unemployment. It also explains why an increase in the proportion of secondary wage earners (young people and women) in the labour force will tend to raise the average unemployment rate for frictional reasons, as these people tend to go in and out of the labour force and to have more spells of unemployment than prime age males. This body of literature has greatly illuminated labour market analysis, and demonstrates the usefulness of having data on gross flows into and out of unemployment with detailed data on average duration and length of completed spells of unemployment, broken down by age and sex.[14] The quantitative

[11]See W. H. Beveridge, *Unemployment: A Problem of Industry*, Longmans Green, London, 1909, p. 13.

[12]See his contribution to G. D. N. Worswick, ed., *The Concept and Measurement of Involuntary Unemployment*, Allen and Unwin, London, 1976.

[13]See E. S. Phelps, ed., *Microeconomic Foundations of Employment and Inflation Theory*, Macmillan, London, 1970.

[14]See T. F. Cripps and R. J. Tarling, Duration of Male Unemployment in Great Britain, 1932–1973, *Economic Journal*, June 1974, and R. F. Fowler, *The Duration of Unemployment on the Register of Wholly Unemployed*, H.M.S.O., London, 1968.

conclusions about how much extra frictional unemployment is induced by extended unemployment insurance or changing demographic structures is still a matter for interpretation and disagreement,[15] but there is no doubt of the value of more detailed data in sharpening analysis in this domain.

In principle, frictional unemployment is necessary for economic efficiency and individual welfare. There is no hope of eliminating it. All the unemployment service can do is to provide information which increases the transparency and fluidity of labour markets. What appears in the statistics as the annual proportion of unemployment is only the tip of the frictional iceberg. In 1975, about 1 million people in Great Britain were registered unemployed on average for the year, but about 4.6 million new registrations occurred in the course of the same year. In France between 1971 and 1976, the number of annual spells of unemployment was three to five times larger than the average stock of unemployed. In Germany in 1975, the number experiencing unemployment was about three and a half times greater than the average stock for the year.[16] Most people entering unemployment did so for a brief spell and then stayed in a job. These are frictionally unemployed. Unemployment for long periods, or for persons who have repeated brief spells is not frictional.[17]

Seasonal Unemployment

This is a minor category of unemployment in present circumstances. Analytically it lies somewhere between frictional and structural. It can be squeezed down to residual levels by policy action and by the dynamics of a labour market with a long experience of full employment, but it cannot be eliminated and is not an important source of policy concern.

Seasonal unemployment was very roughly targetted at 1 percent of the labour force by Beveridge, by adjustment of estimates by Saunders. Saunders estimated

[15]See H. Gruebel and M. A. Walker, eds., *Unemployment Insurance: Global Evidence of its Effects on Unemployment*, Fraser Institute, Vancouver, 1978 for a theoretical exposition, an international comparison and country studies including five papers on postwar unemployment in individual EEC countries (including France and Germany). For the U.K., there are more studies than for France and Germany. M. Scott and R. A. Laslett, *Can We get Back to Full Employment?*, Macmillan, London, 1978 is a recent extensive discussion with rather high estimates of the increment in frictional unemployment. Lower estimates are presented by S. J. Nickell, The Effect of Unemployment and Related Benefits on the Duration of Unemployment, *Economic Journal*, March 1979. It should be noted that none of these estimates imply that increased unemployment for this reason is undesirable.

[16]See P. Gutman, Spells of Unemployment and Their Average Duration, mimeographed, 1976 and L. Reyher, M. Koller and B. Spitznagel, *Beschaftigungspolitische Alternativen zur Arbeitslosigkeit*, I.A.B., Nuremberg, April 1979. It should be noted that there is also a good deal of frictionless job change. In U.K. manufacturing in 1976, 24.3 percent of employees left their jobs and the same proportion received new jobs. Many of them did so without becoming unemployed, see *British Labour Statistics, Yearbook 1976*, H.M.S.O., London, p. 174 for the figures.

[17]The exact definition of frictional unemployment is a matter of pragmatic judgement on which opinions may differ, particularly when job search is lengthened by higher unemployment benefits. It is also clear that if it is defined simply as unemployment below a certain time span, that it will be affected by cyclical influences. The nearest approach to an official estimate of frictional unemployment I have found is the response of the US Bureau of Labor Statistics to Senator Humphrey's request for such a figure, see *Congressional Record-Senate*, August 10th 1976. This took a 4 week cut-off period in 1975 and found 2.4 percent of the labour force in this category in 1975; 1.4 percent of these were new entrants, 0.4 percent were job leavers, and 0.6 percent were job losers. In European countries the figure is likely to be well below the US figure as unemployment rates for new entrants are a fraction of US rates.

the annual average impact of seasonal unemployment at 1.9 percent of the U.K. labour force in 1924, 2.0 percent in 1928 and 2.3 percent in 1932. In the course of a year he estimated 5–7 percent of the labour force to be affected in some degree by this phenomenon.[18] Saunders' estimate was higher than Beveridge's, but Saunders noted that seasonal unemployment was higher in recessions, so Beveridge's estimates for the full employment situation seemed reasonable. In fact postwar losses of employment for seasonal reasons have averaged a good deal less than 1 percent of the labour force in these countries. If one defines seasonal unemployment as the difference between actual annual average unemployment and what it would have been if the same seasonal conditions had prevailed in each month as in the month when the seasonal adjustment factor was most favourable to employment, then for 1978, seasonal unemployment was 0.6 percent of the labour force in France, 0.5 percent in Germany and 0.3 percent in the U.K.[19] The long run decline in seasonal unemployment is partly due to the fact that high levels of employment reduce the supply of labour to fluctuating trades and force employers there to stabilise their work opportunities, partly to the very big decline in the role of agriculture, and in Germany to the large payments for bad weather and winter time losses in building, which are not classified as unemployment.

Structural Unemployment

Structural unemployment is a greater source of policy concern than frictional or seasonal unemployment because it may last for prolonged periods and cannot be removed by expansionary macro-economic policy.[20] A good deal of structural unemployment arises from the longer term adjustments required by economic change. Each specific structural problem can be mitigated by policy action, but as economic structure is in permanent flux, some degree of structural unemployment is inevitable.[21] It can be due to changes in production techniques (technological unemployment), changes in consumer demand, in industrial location, or to changes in skill requirements. It can equally be caused by certain characteristics of the labour force, e.g. their level of education, the number of handicapped persons etc.

Structural unemployment in this sense is an inevitable concomitant of economic development. The faster the rate of growth, the more structural change there is likely to be. There have been several attempts to measure the pace of structural change in this traditional sense in the 1970s. Most of these have found no accentuation of structural problems in the 1970s. This is true of a study of industrial change in five countries including France, Germany and the U.K. by Turvey. The I.A.B. in Nuremberg found a *decline* in the structural component of unemployment in Germany in the 1970s, when measured either in terms of

[18]See C. Saunders, *Seasonal Variations in Employment*, Longmans Green, London, 1936.

[19]The same method is used to calculate seasonal unemployment by E. G. Gilpatrick, *Structural Unemployment and Aggregate Demand*, Johns Hopkins, 1966.

[20]The classic analysis of structural unemployment is by R. G. Lipsey, in A. M. Ross, ed., *Employment Policy and the Labor Market*, Berkeley, 1965, p. 215.

[21]See A. Maddison, Economic Growth and Structural Change in the Advanced Economies, in Hudson Institute, *Western Economies in Transition*, New York, 1979, for a historical review of structural change and its causes.

regional or occupational mismatch of jobs and vacancies, or in terms of the pace of change in industrial structure. An O.E.C.D. study found no evidence of a worsening in the structural distribution of employment opportunity.[22] No hard evidence has been adduced of rising unemployment due to greater skill mismatches in the 1970s, though changes have occurred in the relative pay of different educational categories. There is little evidence that the structural pattern of unemployment by age and sex has shifted in the recession for structural reasons.

Youth unemployment declined abnormally in the U.K. in 1973 when the school leaving age was raised and thereafter rose rapidly as a share of total registered unemployment, but unemployed youth are now eligible for income maintenance benefits if they register, whereas their incentive to do so was very much smaller in earlier years. In all three countries, policies of job protection for older workers have to some extent damaged the prospects for young people, but this effect can hardly be considered structural.[23]

Neo-Structural Unemployment

In every major recession there is a new crop of structuralist diagnosis and advocacy of structuralist remedies. The incentive to follow such reasoning is all the greater when expansionary macro-policy is so firmly ruled out by the authorities, but when structuralist arguments may succeed in persuading the same authorities to spend a good deal more on selective manpower policies. One must always be rather sceptical of structuralist elements whose onset coincides with a recession.[24] It is true that the 1974–75 recession was strongly influenced by the OPEC oil price hike, but curiously enough the structuralist pundits have given remarkably little weight to energy price changes as a cause of structural unemployment.

In the 1970s, the most sophisticated new element in the "structural" discussion is the argument that rising wages have squeezed profits and forced investment into a labour saving pattern. Scrapping of older capital stock which involved more labour intensive technology is alleged to have created a shortage of capital which makes full employment difficult or impossible to attain. In fact it is

[22]See R. Turvey, Structural Change and Structural Unemployment, *International Labour Review*, September–October 1977; U. Cramer, W. Klauder, D. Mertens, L. Reyher and E. Spitznagel, Zum Problem der Structurellen Arbeitslosigkeit, *Mitteilungen aus der Arbeitsmarkt und Berufsforchung*, 1976, 1. The 1978 O.E.C.D. report *Medium Term Strategy* endorses this evidence as follows (p. 56): "To judge from regional, industrial and occupational differences between unemployment rates, there is no evidence that the dispersion and thus the likelihood of a mismatch between supply and demand patterns has increased during the recent recession." Elsewhere it strikes a discordant note. (Chapter I and Annex II).

[23]The O.E.C.D. diagnosis of youth unemployment rejects "structuralist" interpretations of the phenomenon, see *Youth Unemployment*, Vol. I, O.E.C.D., Paris, 1978, p. 49.

[24]There is a recurrent tendency, when actual economic growth falls significantly below potential, for structural problems to be rediscovered or reemphasized. Concern with structural problems is in fact a cyclical phenomenon.—It has been given considerable emphasis in interpretations of prewar European and particularly of British problems, see I. Svennilson, *Growth and Stagnation of the European Economy*, E.C.E., Geneva, 1954. It was given great emphasis in the discussion of automation in the Eisenhower years in the U.S.A. For a critique of such views see R. M. Solow, *The Nature and Sources of Unemployment in the United States*, Almquist and Wiksell, Stockholm, 1964, and the contributions of Solow and Okun to E. Ginzberg. *Jobs for Americans*, Prentice-Hall, New Jersey, 1976.

not possible to determine empirically what portion of investment is labour saving, or indeed what the rate of scrapping is, and it is also unlikely that productive technology is so inflexible as to make such a capital shortage plausible when the capital stock is generally underutilized. However, this neostructuralist argument has been advanced in all seriousness in a recent O.E.C.D. report and it has gained official endorsement in the Netherlands where the argument has been developed in its most elaborate form.[25]

The policy implication of this type of argument is a squeeze on wages by union restraint or a boost to profits by tax privileges. It is in fact an econometric variant of the old neo-classical argument that unemployment is caused by excessive wage demands, except that it is more extreme, in that wage restraint is not expected to provide a solution until the capital stock has had time to change its characteristics.[26]

One structural change which has caused concern for its productivity implications is the phenomenon of deindustrialisation. The most buoyant sector in terms of output and employment is the service sector which has slow productivity growth. It is not clear why this should exacerbate the unemployment problem. The reverse could rather be expected. However, the recent O.E.C.D. *Medium Term Strategy* report (p. 33) argues that this phenomenon contributes to unemployment because it is alleged that the service sector differs from other sectors because it recruits a large proportion of its new employees from outside the ranks of the unemployed. But, in fact, the sectoral patterns of recruitment do not vary much by sector.[27]

Demand Deficient Unemployment

In this paper, no attempt has been made to produce a refined estimate of the full employment rate of unemployment (FEUR), because the main point here is to emphasise the non-unemployment components of labour slack. As explained above, we have simply taken the 1973 levels of unemployment to represent FEUR, and have included only the excess of actual unemployment above this figure as a component of labour slack. Within FEUR, there are three components of which the frictional is the biggest. In passing, it should be noted that the German FEUR of 1 percent is much lower than the 2.7 percent for France and 2.9 percent for the U.K. for three reasons (a) Germany treats most seasonal unemployment as employment; (b) unemployment of new entrants is much lower

[25]See H. den Hartog and H. S. Tjan, Investments, Wages, Prices and Demand for Labour, A Clay–Clay Vintage Model for the Netherlands. *De Economist*, 1976, 1/2 Issue.

[26]For detailed criticism of the structuralist arguments, see W. Driehuis, Capital-Labour Substitution and Other Potential Determinants of Structural Employment and Unemployment, O.E.C.D., *Structural Determinants of Employment and Unemployment*, Paris 1979; F. H. Gruen, Structural Unemployment as a Rival Explanation—A Survey of an Inconclusive Argument, in H. Giersch, ed., *Capital Shortage and Unemployment in the World Economy*, Mohr, Tubingen, 1978, and R. A. de Klerk, H. B. M. van der Laan and K. B. T. Thio, Unemployment in the Netherlands: A Criticism of the den Hartog–Tjan Vintage Model, *Cambridge Journal of Economics*, 1977, I, pp. 291–306.

[27]The EEC *Labour Force Sample Survey* for 1975, pp. 132–7, shows that of new entrants into each sector since the previous year in France, 92.5 percent of those recruited for services were not from the ranks of the unemployed, 92.1 percent in industry, and 95.5 percent in agriculture. On the general theme of deindustrialisation, see F. Blackaby, *De-Industrialisation*, Heinemann, London, 1979.

in Germany than in the other countries because of the close link between school and work for teenagers; (c) the use of foreign workers as a buffer cuts down the unemployment level.

Our approach to FEUR is not very different from that of Beveridge's 1944 Keynesianism. In recent years there has been a resurgence of neoclassic theories which seek to extend the range of unemployment which is considered to be voluntary. The neostructuralist argument is only one example of this line of argument. Virtually all of these theories contend that unemployment is due to high or sticky wage levels and the causal role of deficient demand is rejected. "All these new theories of employment and unemployment start from the neoclassical assumption that there exists a market-clearing real wage. If the labour market appears in fact not to clear, it must then, in a rational world, be because labour *chooses* to price its services so as to maintain an excess of supply over demand. In search models, labour does so in order to spend time productively searching, in the contract theories, so that it can buy more wage stability than the market would otherwise provide. In the non-market clearing models it is true that unemployment is involuntary, but this is not taken by the most up-to-date theorists as grounds for thereby turning away from such models—the unemployed are in that state involuntarily, but the blame is due to other participants in the labour market keeping wages too high."[28]

In the 1973-78 period the deficiency of demand which led to increased unemployment was deliberately contrived by government macro-policy which in most cases has been seeking thereby to ease inflationary pressures or balance of payments problems. Phillips curve analysis has been influential in government policy making over a good part of the postwar period, and in the 1970s, as the pace of inflation accelerated it was felt that a higher unemployment trade-off was required. This change in policy attitudes is illustrated in a speech by the British Prime Minister in September 1976: "It used to be thought that a nation could just spend its way out of recession and increase employment by cutting taxes and boosting government spending. I tell you in all candour that that option no longer exists. In so far as it existed in the past, it had always led to a bigger dose of inflation followed by a higher level of unemployment."[29]

Thus there has been a move of policy in a "monetarist" direction in France and the U.K., with a closer convergence towards views which have always been stronger in German macro-economic policy than in the other two countries. The monetarist goal is a non-accelerating rate of inflation, and a "natural" but unspecified level of unemployment. In fact, the peak rate of price increase occurred in 1975, and between then and 1978, prices were decelerating, so that on monetarist criteria, unemployment was above the natural rate. In fact, policy has been more ambitious. Non-accelerating inflation was not enough. There was an attempt to return to "acceptable" but not always clearly specified rates of price increase and to let unemployment rise above the natural rate, whilst converting as much unemployment as possible into less overt forms of labour slack.

[28]T. Hazeldine, Employment Functions and the Demand for Labour in the Short-Run, Economic Council of Canada, mimeographed, August 1979.

[29]Quoted by M. Scott and R. A. Laslett, *Op. cit.*, p. 1.

By the end of 1978, after five years of cautious macro policy it seemed that the economic situation was ripe for reduction of unemployment by more expansionary policy. The pace of price increases had decelerated below previous peaks, the current balance was positive in all three countries and all of them had bigger exchange reserves than in 1973. However, inflation and balance of payments difficulties have reemerged because of the O.P.E.C. price increases in 1979, so the outlook is again one of below-potential growth and increasing labour slack.

It is clear from the foregoing that designation of a full employment rate of unemployment is a controversial issue. To characterise the whole of our fourth component of unemployment as "demand deficient" may be somewhat anachronistic, but it is the part of unemployment which might be removable by more successful macro policy (including incomes policies), as distinct from the three other components (seasonal, frictional and structural) which can only be mitigated by labour market or regional policies.

Annex on Labour Market Monitoring and Use of Potential

Tables F-1 to F-4, G-1 to G-4, and U-1 to U-4 constitute the proposed minimal set of accounts for labour market monitoring. Tables F-5, G-5 and U-5 summarise the use-of-potential analysis.

Table

TABLE F-1

LABOUR FORCE, POPULATION OF WORKING AGE AND ACTIVITY RATES IN FRANCE, 1960–78

	Total Labour Force (All ages) (000s)	Total Population Aged 15–64 (000s)	Activity Rate (Col. 1÷2) (Percent)	Male Labour Force (All ages) (000s)	Male Population Aged 15–64 (000s)	Male Activity Rate (Col. 4÷5) (Percent)	Female Labour Force (All ages) (000s)	Female Population Aged 15–64 (000s)	Female Activity Rate (Col. 7÷8) (Percent)
1960	19,723	28,319	67.3	13,014	14,058	92.6	6,709	14,261	47.0
1961	19,694	28,552	68.8	13,063	14,202	92.0	6,631	14,350	46.2
1962	19,737	29,138	67.7	13,212	14,527	90.9	6,525	14,611	44.7
1963	19,989	29,736	67.2	13,476	14,847	90.8	6,513	14,889	43.7
1964	20,080	30,072	66.8	13,629	15,021	90.7	6,451	15,051	42.9
1965	20,236	30,368	66.6	13,734	15,173	90.5	6,501	15,195	42.8
1966	20,267	30,618	66.2	13,579	15,302	88.7	6,688	15,316	43.7
1967	20,316	30,840	65.9	13,429	15,417	87.1	6,887	15,423	44.7
1968	20,495	31,071	66.0	13,342	15,540	85.8	7,153	15,531	45.7
1969	20,687	31,348	66.0	13,281	15,702	84.6	7,406	15,646	47.3
1970	20,903	31,666	66.0	13,223	15,894	83.2	7,680	15,772	48.7
1971	21,044	31,978	65.8	13,257	16,073	82.5	7,787	15,905	49.0
1972	21,375	32,269	66.2	13,402	16,236	82.5	7,973	16,033	49.7
1973	21,574	32,550	66.3	13,465	16,397	82.1	8,109	16,153	50.2
1974	21,878	31,826	68.7	13,578	16,556	82.0	8,300	16,270	51.0
1975	22,052	33,041	66.7	13,567	16,681	81.3	8,485	16,360	51.9
1976	22,216	33,402	66.5	13,572	16,753	81.0	8,644	16,649	51.9
1977	22,522	33,762	66.7	13,653	16,824	81.2	8,869	16,938	52.4
1978	22,603	33,944	66.6	13,689	16,915	80.9	8,914	17,029	52.3

TABLE F-1b

FOREIGNERS IN POPULATION, LABOUR FORCE, EMPLOYMENT, AND UNEMPLOYMENT IN FRANCE, 1970–78

	Foreign Population Aged 15–64 (000s)	Foreign Labour Force (000s)	Foreign Activity Rate (Percent)	Foreigners As Percent of Labour Force	Foreigners Employed (000s)	Foreigners Unemployed (000s)
1970	1,628	1,140	70.0	5.5	1,112	28
1971						
1972						
1973	1,746	1,195	68.4	5.5	1,163	32
1974	1,818	1,260	69.3	5.8	1,226	34
1975	1,931	1,377	71.3	6.2	1,307	70
1976	2,055	1,432	69.7	6.4	1,338	94
1977	2,205	1,550	70.3	6.9	1,447	103
1978	2,284	1,518	66.5	6.7	1,395	123

TABLE F-2

EMPLOYMENT, UNEMPLOYMENT, AND EMPLOYMENT RATES BY SEX IN FRANCE, 1960–78

	Employment (000s)	Unemployment (000s)	Employment as Percent of Labour Force	Male Employment (000s)	Male Unemployment (000s)	Male Employment as Percent of Male Labour Force	Female Employment (000s)	Female Unemployment (000s)	Female Unemployment as Percent of Labour Force
1960	19,343	380	98.1	12,879	135	99.0	6,464	245	96.4
1961	19,346	348	98.2	12,934	129	99.0	6,412	219	96.7
1962	19,414	323	98.4	13,085	127	99.0	6,329	196	97.0
1963	19,686	303	98.5	13,338	138	99.0	6,348	165	97.5
1964	19,744	336	98.3	13,489	140	99.0	6,255	196	97.0
1965	19,913	323	98.4	13,595	139	99.0	6,317	184	97.2
1966	19,888	379	98.3	13,426	153	98.9	6,462	226	96.6
1967	19,930	386	98.1	13,253	176	98.7	6,677	210	97.0
1968	20,024	471	97.7	13,149	193	98.6	6,875	278	96.1
1969	20,231	456	97.8	13,096	185	98.6	7,135	271	96.3
1970	20,393	510	97.6	13,030	193	98.5	7,363	317	95.9
1971	20,475	569	97.3	13,042	215	98.4	7,433	354	95.5
1972	20,780	595	97.2	13,172	230	98.3	7,607	366	95.4
1973	20,998	576	97.3	13,252	213	98.4	7,746	363	95.5
1974	21,263	615	97.2	13,352	226	98.3	7,911	389	95.3
1975	21,150	902	95.9	13,178	389	97.1	7,972	513	94.0
1976	21,223	993	95.5	13,170	402	97.0	8,053	591	93.2
1977	21,389	1133	95.0	13,193	460	96.6	8,196	673	92.4
1978	21,416	1187	94.8	13,184	505	96.3	8,232	682	92.4

TABLE F-3

AVERAGE ALLOCATION OF DAYS PER YEAR PER EMPLOYEE IN FRANCE, 1960–78

	Days Per Year	Free Sundays Per Year	Free Saturdays Per Year	Public Holidays	Days of Vacation	Days of Incapacity	Days Lost Through Bad Weather	Days Lost For Personal Reasons	Time Lost Through Industrial Disputes	Days Worked
1960	366	52	53	10.0	18	13.18	1	1.77	0.057	216.99
1961	365	53	51	10.0	18	13.22	1	1.73	0.139	216.91
1962	365	52	52	10.0	18	13.30	1	1.70	0.101	216.90
1963	365	52	52	10.0	18	13.36	1	1.66	0.303	216.68
1964	366	52	52	10.0	18	13.52	1	1.62	0.131	217.73
1965	365	52	52	10.0	18	13.52	1	1.58	0.050	216.85
1966	365	52	53	10.0	24	13.64	1	1.55	0.128	209.68
1967	365	53	52	10.0	24	13.69	1	1.51	0.213	209.59
1968	366	52	52	10.0	24	13.80	1	1.47	7.344	204.39
1969	365	52	52	10.0	24	13.25	1	1.44	0.111	211.20
1970	365	52	52	10.0	24	13.28	1	1.40	0.086	211.23
1971	365	52	52	10.0	24	13.17	1	1.36	0.216	211.25
1972	366	53	53	10.0	24	13.51	1	1.32	0.184	209.99
1973	365	52	52	10.0	24	13.67	1	1.29	0.189	210.85
1974	365	52	52	10.0	24	13.74	1	1.25	0.162	210.85
1975	365	52	52	10.0	24	14.50	1	1.21	0.199	210.09
1976	366	52	52	10.0	24	13.96	1	1.18	0.242	211.62
1977	365	52	53	10.0	24	13.56	1	1.14	0.177	210.12
1978	365	53	52	10.0	24	13.59	1	1.10	0.177	210.13

TABLE F-4

HOURS WORKED PER PERSON AND TOTAL HOURS WORKED IN FRANCE 1960–78

	Average Hours Worked Per Employee In Weeks Unaffected by Absence	Average Hours Worked Per Employee Per Day (Assuming 5 Day Week)	Average Hours Worked Per Employee Year	Total Hours Worked Per Year (million)
1960	45.7	9.14	1983.3	38,363
1961	45.9	9.18	1991.2	38,522
1962	46.1	9.22	1999.8	38,825
1963	46.1	9.22	1997.8	39,328
1964	45.9	9.18	1998.8	39,464
1965	45.6	9.12	1977.7	39,381
1966	45.8	9.16	1920.7	38,198
1967	45.5	9.10	1907.3	38,011
1968	45.2	9.04	1847.7	36,998
1969	45.1	9.02	1905.0	38,540
1970	44.7	8.94	1888.4	38,510
1971	44.3	8.86	1871.7	38,323
1972	44.9	8.98	1885.7	39,185
1973	43.4	8.68	1830.2	38,430
1974	42.9	8.58	1809.1	38,467
1975	42.1	8.42	1769.0	37,414
1976	41.8	8.36	1769.1	37,546
1977	41.4	8.28	1739.8	37,212
1978	41.1	8.22	1727.3	36,991

Source Notes for French Tables

Table F-1

Labour force 1963–78 estimated by linking annual data from INSEE *Enquetes sur l'Emploi* to benchmark estimates in the censuses of 1962, 1968, 1975. 1960, 1961 and 1962 from G. Bloch and M. Praderie, *La Population Active dans les Pays Developpés*, Cujas, Paris, 1966 (linked to 1954 and 1962 censuses). The figures refer to March of each year. Population aged 15–64 by sex from Eurostat, *Population et Emploi*, 1950/76, Brussels 1977, 1977 from *Telegramme Statistique*, Eurostat, 25th October 1978, and 1978 from INSEE, *Comptes de la Nation*, 1978, Vol. II. The population figures refer to the midyear situation.

Table F-1b

Labour, force, employment and unemployment from INSEE, *Enquetes sur l'Emploi*, and refer to the situation in March of each year.

Table F-2

Unemployment 1970–78 estimates from INSEE, *Comptes de la Nation de l'Année 1978*, Vol. II, p. 67. These estimates are based on the ILO definition of unemployment[1] which has been used by INSEE since 1973 in its labour force survey (annual in March to 1977, since when it has been conducted twice yearly, in

[1]See I.L.O., *International Recommendations on Labour Statistics*, Geneva, 1976, pp. 28–32.

TABLE F-5

COMPARISON OF ACTUAL AND POTENTIAL LABOUR INPUT IN FRANCE, 1973–78

	Actual Weekly Hours Worked Per Employee	Trend Weekly Hours Worked Per Employee	Actual Daily Hours Worked Per Employee	Potential Daily Hours Per Employee	Actual Days Worked Per Year	Actual Annual Hours Worked Per Person	Potential Annual Hours Worked Per Person	Ratio of Actual to Potential Annual Hours Worked Per Person
1973	43.4	43.4	8.68	8.68	210.85	1830.2	1830.2	100.00
1974	42.9	43.1	8.58	8.62	210.85	1809.1	1817.5	99.54
1975	42.1	42.8	8.42	8.56	210.09	1769.0	1798.4	98.37
1976	41.8	42.6	8.36	8.52	211.62	1769.1	1803.0	98.12
1977	41.4	42.3	8.28	8.46	210.12	1739.8	1777.6	97.87
1978	41.1	42.1	8.22	8.42	210.13	1727.3	1769.3	97.63

	Actual Labour Force (000s)	Potential Labour Force (000s)	Ratio of Actual to Potential Labour Force	Actual Employ-ment Rate	Potential Employ-ment Rate	Ratio of Actual to Potential Employment Rate	Actual Total Hours Worked (Millions)	Potential Total Hours Worked (Millions)	Ratio of Actual to Potential Labour Input
1973	21,574	21,574	100.00	97.3	97.3	100.00	38,430	38,430	100.00
1974	21,878	21,878	100.00	97.2	97.3	99.90	38,467	38,689	99.43
1975	22,052	22,052	100.00	95.9	97.3	98.56	37,414	38,588	96.96
1976	22,216	22,216	100.00	95.5	97.3	98.15	37,546	38,974	96.34
1977	22,522	22,522	100.00	95.0	97.3	97.64	37,212	38,954	95.53
1978	22,603	22,685	99.64	94.8	97.3	97.43	36,991	39,053	94.72

March and October). For years before 1973, the labour force surveys used the French census definition of unemployment which was slightly lower than that of I.L.O. For the years 1960–69, the estimates were made by R. Granier on the basis of the relationship observed for 1970–78 between the different sources. The estimates are an annual average which is derived by applying the relationship of the March labour force survey figure and the unemployment registration figure for that month to the monthly registration figures. Employment is derived by deducting unemployment from the labour force as shown in Table F-1. This leads to slight error as the labour force figures refer to March and the unemployment figures are annual averages.

Table F-3

The first 3 columns are self-explanatory. Columns 4 and 5 from Eurostat, *Indicateurs Sociaux pour la Communaute Europeenne, 1960–1975* (Serie "Statistiques Sociales"), 1976.

Column 6 refers to the number of days of absence compensated for sickness, maternity and work accidents from Caisse Nationale d'Assurance Maladie, *Resultats Statistiques*, 1977 edition for 1968–77, and 1978 edition for 1978. The 1960–67 figures are estimates by R. Granier.

Column 7. No figures were available and one day a year is assumed here *pro memoria* as a rough order of magnitude.

Column 8 estimates are available only for 1951 and 1974 (see INSEE, *Statistiques Sociales*, 1978, p. 104). The column shown here is based on interpolation and extrapolation of these benchmark figures.

Column 9. Official Ministry of Labour estimates.

Table F-4

First column. Weekly hours worked (horaires affichés) by wage and salary workers in most private sectors of the economy (as collected annually by INSEE from employers), see INSEE, *Donnes Sociales*, 1978, Table 57, p. 95 for 1960–76, and *Rapport sur les Comptes de la Nation de l'Annee 1978*, Vol. II, p. 65 for 1977–78. Second column equals first divided by 5. Column 3 is column 2 multiplied by last column of Table F-3, column 4 is column 3 multiplied by employment. Hours figures are the annual average of quarterly employer returns.