

The Extent of High Unemployment in OECD Countries

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The Organization for Economic Cooperation and Development (OECD) has recently completed a two-year study of the causes of unemployment and appropriate solutions. The analysis and policy conclusions of this work were endorsed by OECD ministers at their meeting in June 1994. This report does not mince its words about the seriousness of the problem and the challenges it poses. It describes unemployment as: "probably the most widely feared phenomenon of our times. It touches all parts of society."¹

It points out that:

"More than ever since World War II, today's unemployment is causing damage in ways that cannot be measured by the sheer numbers. High unemployment creates insecurity and resistance to organizational and technical change. Long-term unemployment lowers self-esteem, is demotivating and self-reinforcing, and is associated with health problems. The rise in youth unemployment means that many young people are losing skills or employability. Groups in society that have never before faced a high risk of unemployment, such as white-collar workers, are losing jobs, with all the personal and societal costs that implies in terms of lost potential and lost investment."²

It then proposes more than sixty policy recommendations to tackle the problem. These recommendations cover a wide range of macroeconomic and structural policies designed to achieve the twin goals of

higher employment with good jobs.

In this paper, I do not review these policy recommendations in any detail. Rather, I focus on a narrower remit, but one that is essential to the purposes of this symposium, namely to describe both the extent and nature of the unemployment problem facing OECD countries today.

The first section highlights cross-country trends in unemployment experience since 1950. The second section considers the adequacy of unemployment as a measure of labor market slack and presents some cross-country data on "extended" measures of unemployment. This is followed by a detailed description of the composition of OECD unemployment, focusing on demographic characteristics, family status, and skill levels. The fourth section focuses on an aspect of the unemployment problem which has particularly preoccupied policy-makers of late—the growing tendency in many countries, especially in Europe, for people to drift into long-term unemployment. The fifth section analyzes one major dimension of the costs of unemployment, namely public spending on labor market policies, and presents preliminary evidence on its impact on labor market performance. The final section presents some concluding observations.

Trends in OECD unemployment since 1950

Chart 1 depicts the trends since 1950 in unemployment in the OECD area and its five main countries/zones—North America, the European Community (EC), European Free Trade Association (EFTA) countries, Oceania (Australia and New Zealand), and Japan. During the 1950s and the 1960s, the total number of unemployed in the OECD area averaged below 10 million, an unemployment rate of around 3 percent. But the year of the first oil shock, 1973, represents a watershed in the picture. Over the following ten years, OECD unemployment tripled to 30 million, an unemployment rate of 8 percent. The subsequent prolonged expansion only trimmed back the unemployment total to 25 million people in 1990. After 1990, the number of persons unemployed rose sharply: and the latest OECD Secretariat projections suggest that that number could exceed 35 million persons in 1994 (an unemployment rate of 8.5 percent), before declining

slightly in 1995 as the economic recovery, which is now under way in the OECD area as a whole, steadily gathers **strength**.³

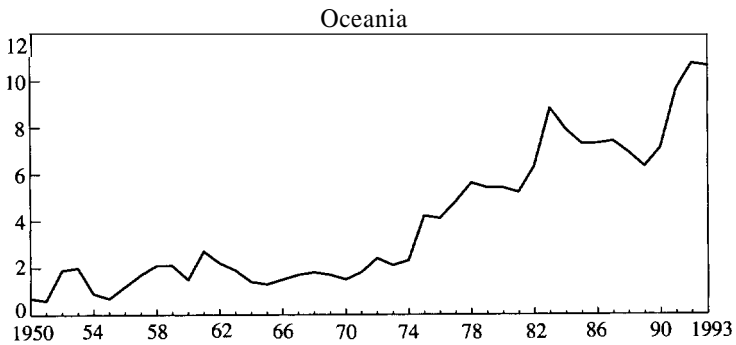
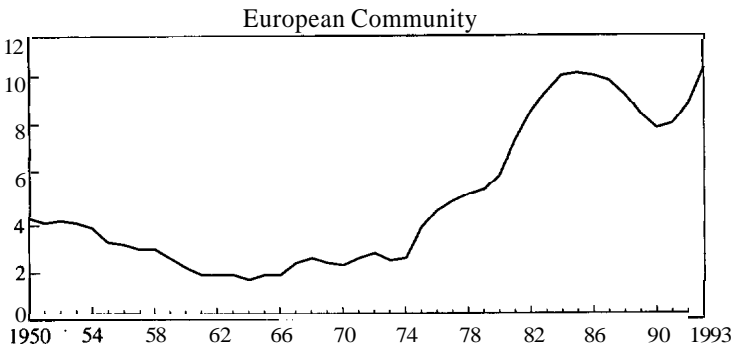
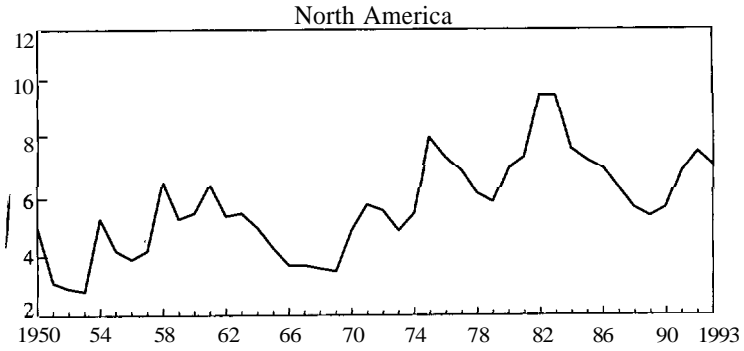
Chart 1 reveals two striking "stylized facts about postwar OECD unemployment experience. First, the overall rising trend has been spread very unevenly across the OECD area:

- In North America, unemployment rates were relatively high in the 1950s and 1960s. But there has been only a modest trend increase since 1970, albeit with large cyclical fluctuations. Unemployment peaked at just over 7½ percent in 1992—well below the previous peak of over 9½ percent in the early 1980s—and is currently around 7 percent.
- The unemployment rate in both the EC and Oceania was lower than in North America in the 1950s and 1960s. But it has risen sharply since the **mid-1970s**, with the unemployment rate in both regions currently at record rates of around 10 to 11 percent.
- The EFTA countries successfully stabilized unemployment in a narrow range of 2 to 4 percent until 1990. Since then, however, the rate has risen sharply, to almost 8 percent.
- Japan has managed to keep recorded unemployment low, at between 1 and 3 percent, throughout the entire postwar period. The current unemployment rate is around 3 percent. But this understates significantly the true extent of labor market slack.

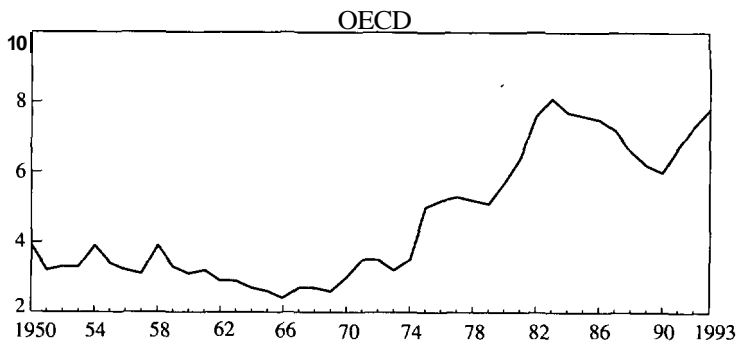
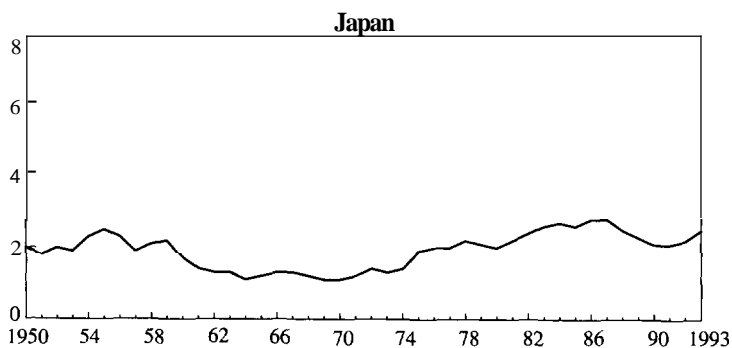
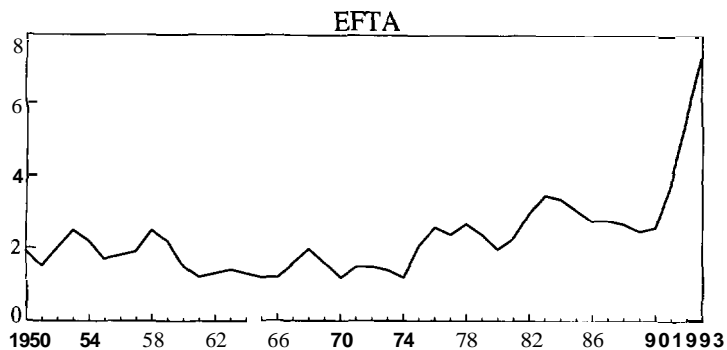
Second, there is an apparent tendency for unemployment rates after rising during a cyclical downswing, to exhibit "persistence," that is, to remain at or around a higher level even when economic activity and employment pick up **again**.⁴ This phenomenon of unemployment persistence is a feature of the data at the aggregate OECD level. It is particularly marked in the EC countries and Oceania.

Table 1 presents the unemployment rates for individual OECD countries since 1950. For virtually all the countries, the data refer to **standardized** unemployment rates which, in principle, are more **com-**

Chart 1
Unemployment Rates in OECD Regions, 1950-93
(Percent of Total Labor Force)



Unemployment Rates in OECD Regions, 1950-93 (continued)



Source: OECD (1994a)

Table 1
Unemployment Rates in OECD Countries, 1950-93¹

	Averages of				1990	1991	1992	1993
	1950s	1960s	1970s	1980s				
North America	4.3	4.7	6.1	7.4	5.7	7.0	7.7	7.2
Canada	3.8	4.7	6.6	9.3	8.1	10.2	11.2	11.1
United States	4.4	4.7	6.1	7.2	5.4	6.6	7.3	6.7
Japan	2.1	1.3	1.7	2.5	2.1	2.1	2.2	2.5
European Community	3.6	2.1	3.7	9.1	8.1	8.3	9.1	10.6
Belgium	3.8	2.1	4.2	10.4	7.2	7.2	7.9	9.1
Denmark	3.7	1.4	3.8	8.9	9.6	10.5	11.2	12.2
France	1.5	1.7	3.8	9.0	8.9	9.4	10.4	11.6
Germany	4.9	0.6	1.9	5.7	4.9	4.2	4.6	5.8
Greece	5.7	5.3	2.3	6.6	7.0	7.7	8.7	9.8
Ireland	5.2	4.9	6.8	13.9	13.3	14.7	15.5	15.8
Italy	7.2	3.8	4.7	7.5	8.2	7.8	8.3	10.2
Luxembourg	0.3	0.2	0.7	2.6	1.7	1.6	1.9	2.6
Portugal	2.2	2.4	4.6	7.3	4.6	4.1	4.1	5.5
Netherlands	1.5	0.9	4.0	9.6	7.5	7.0	6.7	8.3
Spain	2.1	2.3	4.2	17.5	15.9	16.0	18.1	22.4
United Kingdom	1.7	2.0	4.4	10.1	6.9	8.8	10.0	10.3
EFTA	2.0	1.4	1.9	2.8	2.6	3.8	5.6	7.4
Austria	4.3	2.1	1.6	3.3	3.2	3.5	3.6	4.2
Finland	1.6	2.1	3.7	4.9	3.4	7.6	13.1	17.7
Norway	1.7	1.7	1.6	2.8	5.2	5.5	5.9	6.0
Sweden	1.7	1.5	1.8	2.2	1.7	2.9	5.2	8.2
Switzerland	0.3	0.1	1.2	1.5	1.1	1.8	3.1	3.7
Oceania	1.4	1.8	3.4	6.9	7.1	9.6	10.7	10.6
Australia	1.5	2.0	3.9	7.5	7.0	9.5	10.8	10.8
New Zealand	0.9	0.9	1.5	4.1	7.7	10.2	10.3	9.5
Turkey	3.7	4.8	7.5	7.5	7.8	7.6	7.7	7.3
OECD	3.5	2.8	4.3	7.0	6.0	6.7	7.3	7.8

¹standardized unemployment rates except for Austria, Denmark, Greece, Luxembourg, Switzerland, and Turkey. The Eurostat comparable unemployment rates were used for Denmark, Greece, and Luxembourg, and national definitions for the latter two countries and Austria.

Source: Keese (1994).

parable between countries than the unemployment rates published in national sources.⁵ The standardized rates for many countries — which are based on labor force surveys which can produce unemployment data in line with International Labor Office (ILO) guidelines for international comparisons — are available only for the more recent years; to derive a consistent series back to 1950, these standardized rates have been chained with estimates for earlier years derived from other labor force surveys, population censuses, and administrative data.⁶

This table shows the wide-ranging nature of the rise in unemployment over the past two decades. Up to the 1970s, none of the countries shown had double-digit unemployment rates, whereas in 1993 nine countries shared this dubious distinction. The four highest rates are all in Europe: Spain had an unemployment rate in the second quarter of 1994 of 24.1 percent, followed by Finland (18.5 percent), Ireland (15.1 percent), and France (12.6 percent). The recent increase in Finnish unemployment is without precedent in postwar OECD experience: its standardized rate was only 3.4 percent in 1990. Neighboring Sweden has also experienced a sharp increase in unemployment over the same period, up from 1.5 percent in 1990 to 7.7 percent in the second quarter of 1994. The rise in the Swedish unemployment rate would have been even steeper had the government not greatly expanded labor market programs: in 1993, around 6 percent of the Swedish labor force on average were covered by active labor market measures, compared with 1½ percent in 1990.

"Extended" measures of unemployment and underemployment

Unemployment rates, whether standardized or not, in fact cover only a part of labor market slack in OECD countries, and there are long-running debates in many countries as to the adequacy of such conventional measures of unemployment? It is, for example, common to argue that so-called "discouraged workers," that is, persons who report in labor force surveys that they would like a job but are not currently searching for work because they believe no suitable job is available, should be included in the unemployment total. Similarly, many individuals are working fewer hours than they would wish to do

at the going wage rate; these so-called "involuntary part-time workers" are also an element in labor market slack. Others argue that the measured unemployment figures overstate the degree of labor slack by including people who are not really seeking work and/or who are working in the underground economy. Unfortunately, there are no reliable means at our disposal for making cross-country estimates of the numbers of unemployed who might fall into the latter category.⁸ Finally, some analysts have claimed that it is more useful to focus on the "nonemployment" rate, which includes both the unemployed and those who are economically inactive (that is, classified as out of the labor force in household surveys), than on the unemployment rate alone.

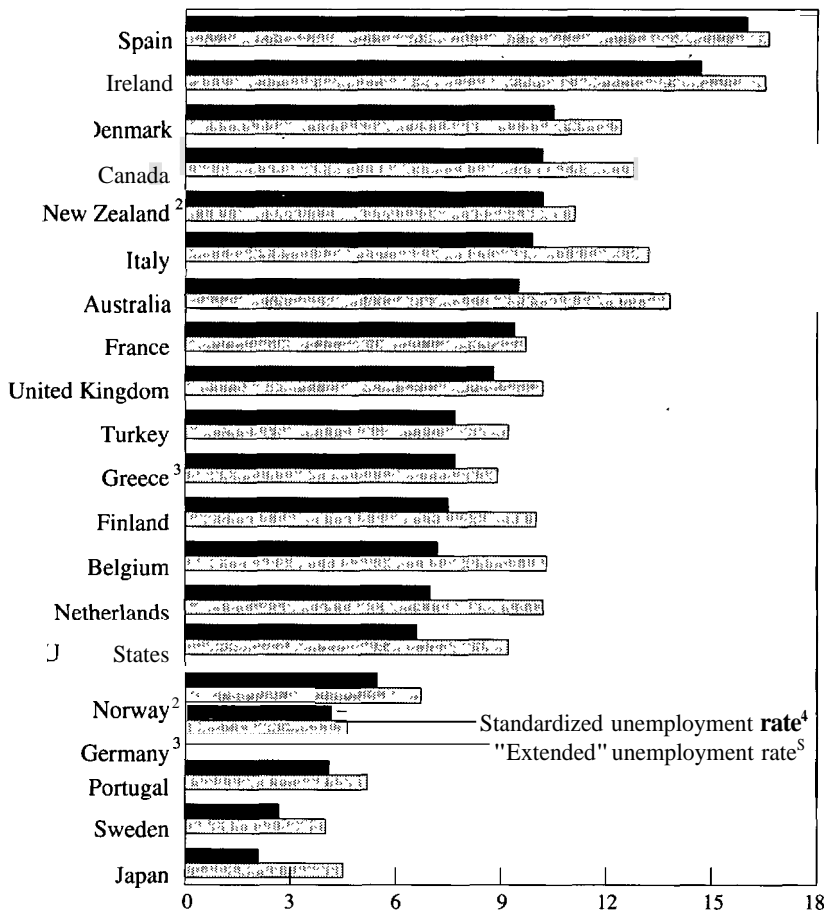
Discouraged workers and involuntary part-time workers

Work has been undertaken recently at both the OECD and the U.S. Bureau of Labor Statistics (BLS) on international comparisons of "extended indicators of unemployment which include some of the major additional dimensions of labor market slack."⁹ It should be emphasized at the outset, however, that given the wide differences in definitions across countries, especially for discouraged workers, cross-country comparisons of these "extended measures must be made with a great deal of caution.

With this caveat in mind, Chart 2 presents the standardized unemployment rate for 1991 and an indicator of extended unemployment which include adjustments for both the numbers of involuntary part-timers and discouraged workers. In terms of the BLS indicators, the standardized rate corresponds to U-5; adding an adjustment for involuntary part-timers to the standardized rate corresponds to U-6; and adding discouraged workers to the standardized rate plus the adjustment for involuntary part-timers corresponds to U-7.¹⁰

It is immediately evident that making these adjustments narrows the range of dispersion in labor market slack across countries: the coefficient of variation for the extended measure of unemployment is 35 percent, compared with 43 percent for the standardized rate alone. At the same time, there is a strong positive correlation between the standardized unemployment rate and the extended measure: the

Chart 2
Unemployment and 'Extended' Unemployment Rates, 1991¹ (in Percent)



¹ Countries are ranked in descending order of the unemployment rate.

² Data for involuntary part-time workers not available.

³ Data for discouraged workers not available.

⁴ OECD standardized unemployment rates for all countries except Denmark, Greece, and Turkey where national definitions were used.

⁵ Including discouraged workers and involuntary part-time workers. Half the number of involuntary part-time workers are included in the number of unemployed.

Source: OECD (1993a), Table 1.5.

Table 2
Alternative Measures of Labor Market Slack in Selected
OECD Countries, 1993

	Standardized unemployment rate	Alternative Unemployment Rates Including		
		Discouraged workers (a)	Involuntary part-time workers ² (b)	Both (a) and (b)
Australia	10.8	12.2	14.2	15.5
Canada	11.1	11.9	13.9	14.6
Japan	2.5	4.5	3.5	5.4
New Zealand	9.5	10.4	NA	10.4
Sweden	8.2	9.9	8.6	10.3
United Kingdom	10.3	10.8	11.9	12.3
United States	6.7	7.5	8.6	9.4
Average³	6.5	7.5	8.1	9.2

¹For definitions of discouraged workers, see Annex 1.A, *OECD Employment Outlook*, 1993. Discouraged workers are included in both the number of unemployed and the labor force.

²For definitions of involuntary part-time workers, see the notes to Table 1.6 of *OECD Employment Outlook*, 1993. Half the total of involuntary part-time workers is included in the number of unemployed.

³Weighted by 1993 labor force.

Source: OECD (1994d).

Spearman rank correlation for 1991 is 0.85. On average, the adjustment for involuntary part-timers is more significant than the adjustment for discouraged workers: for the OECD area as a whole there were about 4 million discouraged workers and 9 million involuntary part-timers, equivalent to almost half the number of unemployed in 1991.

More recent data on the extended measures of unemployment are available for only seven OECD countries. These data, presented in Table 2, show that the average U-7 type rate was 9.2 percent in 1993 compared with an average standardized rate of 6.5 percent. It is noticeable that the extended unemployment rate for Japan more than doubles compared with the standardized rate, narrowing the gap with the United States: as a **proportion** of the U.S. rate, the Japanese rate

risers from 37 percent on a standardized basis to 57 percent on the U-7 type measure.¹

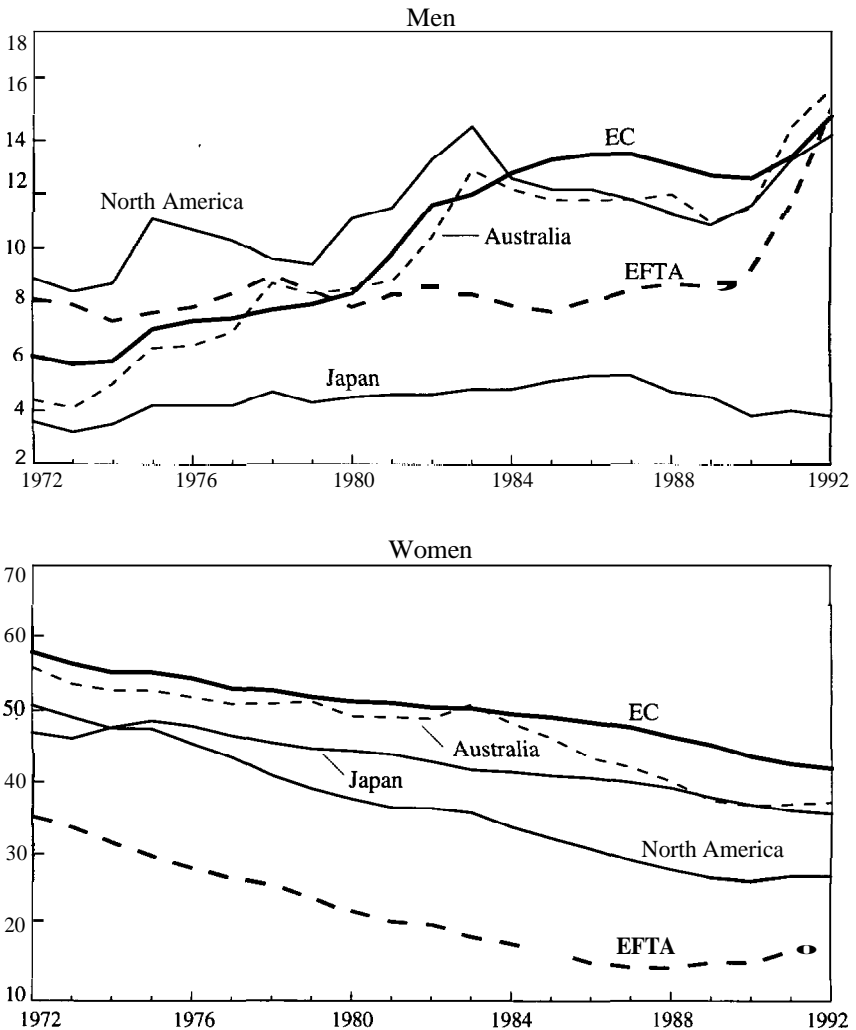
Nonemployment

Other analysts argue that, instead of focusing on certain groups within the inactive population and adding them to the figure for unemployment, it makes more sense to use the nonemployment rate as a measure of labor market slack. They claim this results in a more internationally comparable measure than the standardized unemployment rate or the extended measures of unemployment discussed above.¹² At the same time, not all nonemployment can be regarded as a measure of labor slack. For example, many young people choose to stay on full-time in education and training in order to build up their human capital, rather than to work or look for a job. Many older workers opt for early retirement rather than for paid work or unemployment. And many mothers with young children may not wish to undertake paid work.

In order to adjust for these groups, Chart 3 presents data on nonemployment rates both for prime-age men and for women for the five main OECD countries/regions since the early 1970s. This shows more convergence over time for prime-age males than do unemployment rates alone. It is noticeable that North America, the EC, EFTA, and Australia all have very similar nonemployment rates for prime-age males of 14 to 16 percent in the early 1990s. The contrast with Japan is striking: not only does Japan have an extremely low nonemployment rate of around 4 percent, but the rate has also declined slowly since 1987.

The picture of nonemployment for prime-age women is very different. There has been a downward trend in nonemployment for women in all regions, the sole exception being EFTA in the early 1990s. This trend decline in nonemployment among prime-age females reflects the upward trend in female labor force participation. At the same time, there remains a wide dispersion in nonemployment rates across regions. The highest nonemployment rate in the early 1990s, of around 45 percent, is in the EC followed by Australia and Japan. The lowest nonemployment rate is in the EFTA region.

Chart 3
Non-employment Rates, 1972-1992¹
Percentage of Population Aged 25-54
Not in Employment



¹EC includes France, Germany, Ireland, Italy, the Netherlands, Portugal, Spain, and the United Kingdom. EFTA includes Finland, Norway, and Sweden. The age group for Italy is 25-59 years.

Source: OECD, Labor Force Statistics.

While the extended measures of unemployment or the nonemployment rate do indeed convey more information than the standardized unemployment rate about the degree of labor market slack or social hardship, it is less obvious that either measure is better as an indicator of wage pressure. Elmeskov and Pichelmann (1993) have tested this hypothesis by estimating standard real wage equations for 19 OECD countries in which they include both unemployment and labor force participation rates, in both levels and first differences.¹³ Their results suggest that for most countries the unemployment rate is a more significant determinant of real wage pressures than is the nonemployment rate.

In sum, it is important to complement the standardized unemployment rates with extended measures of unemployment in order to obtain a more complete picture of the under-utilization of labor resources and degree of social hardship. Accordingly, the OECD has begun to construct such measures for the purposes of international comparisons. But the evidence suggests that the standardized unemployment rate is still a very important economic indicator, at least in terms of wage bargaining and inflation pressures.

Composition of OECD unemployment

Policymakers are very concerned about which labor force groups bear most of the burden of high and persistent unemployment. In order to identify these groups, data are first presented on the demographic composition of unemployment. This is followed by data on unemployment rates by family status and by skills/educational qualifications.

Unemployment rates by age and gender

It is well known that in almost all OECD countries young people—defined as those younger than 25—typically experience much higher rates of unemployment than do other age groups. Table 3 shows that the youth unemployment rate in 1993 exceeded 30 percent or more in several European countries (Italy, Spain, and Finland) compared with 13.3 percent in the United States, around 18 percent in Oceania and Canada, around 12 percent in EFTA, and only 5 percent in Japan. Within Europe, only those few countries with a traditionally strong

Table 3
Unemployment Rates by Age and Gender

	Older Workers ¹ Relative to Prime-Age			youths ² Relative to Adults			Women Relative to Men		
	1979	1990	Level ³ 1993	1979	1990	Level ³ 1993	1979	1990	Level ³ 1993
North America	0.71	0.75	5.1	2.84	2.39	13.8	1.36	1.00	6.9
Canada	0.81	0.83	9.6	2.38	1.82	17.8	1.33	1.00	10.6
United States	0.70	0.75	4.7	2.90	2.49	13.3	1.37	1.00	6.5
Japan	1.81	1.64	3.0	1.80	2.45	5.1	0.90	1.08	2.7
European Community	NA	0.98	8.5	NA	2.38	20.2	1.60	1.51	11.7
Belgium ⁴	NA	0.49	2.4	NA	2.34	13.9	3.50	2.51	10.6
Denmark ⁴	NA	0.79	8.5	NA	1.53	11.5	1.94	1.14	10.0
France	1.10	0.84	7.7	3.31	2.47	24.6	1.89	1.72	13.3
Germany ⁵	2.13	2.05	11.5	1.34	0.89	5.4	1.75	1.37	6.3
Greece ⁴	NA	0.25	1.9	NA	5.31	24.5	2.47	2.73	12.9
Ireland ⁵	1.00	1.01	10.8	1.58	1.63	23.1	0.86	0.64	15.4
Italy	0.95	0.25	2.0	6.87	4.50	30.6	2.71	2.27	14.8
Netherlands ⁵	1.01	0.56	3.1	2.47	1.75	10.2	2.15	2.00	8.8
Portugal	0.10	0.56	3.4	5.01	3.13	12.0	3.12	2.08	6.5
Spain	0.75	0.62	11.5	3.86	2.65	43.2	1.23	2.02	29.4
United Kingdom	1.88	1.20	9.7	2.85	1.63	17.3	0.68	0.47	7.5
EFTA	NA	0.81	5.6	NA	1.88	11.8	NA	1.03	6.1
Austria	NA	1.56	5.6	NA	0.75	4.1	2.08	1.17	3.8
Finland	0.93	1.14	17.8	2.28	2.22	30.5	0.87	0.72	15.6
Norway	0.24	0.38	2.6	5.78	3.01	13.9	1.55	0.86	5.2
Sweden	1.39	1.21	5.5	3.34	3.02	18.4	1.25	0.96	6.6
Switzerland ⁶	NA	0.61	1.9	NA	2.19	4.8	NA	2.01	2.7
Oceania	NA	0.99	10.3	NA	2.57	18.4	NA	1.01	9.6
Australia	0.75	1.13	11.3	3.46	2.60	18.6	1.61	1.04	9.8
New Zealand	NA	0.75	5.3	NA	2.43	17.2	NA	0.89	8.9
OECD	NA	0.88	5.4	NA	2.47	15.0	NA	1.25	8.0

¹Older workers are aged 55 to 64 except in the United Kingdom (women 55 and over), Italy (60 to 64), and Norway (60 and over). Prime-age workers are aged 25 to 54 except in Italy and Norway (25 to 59).

²Youths are aged 15 to 24 except in Norway, Spain, Sweden, the United Kingdom, and the United States (16 to 24), and Italy, Belgium, Denmark, and Greece (14 to 24). Adults are aged 25 and older.

³As a percentage of the labor force for the corresponding group.

⁴Unemployment rate levels refer to 1991.

⁵Unemployment rate levels refer to 1992.

⁶Data for 1990 refer to 1991.

Sources: OECD, Labor Force Statistics, Eurostat, Labor Force Survey; Österreichisches Statistisches Zentralamt, Mikrozensus; and Office fédéral de la statistique, Swiss Labor Force Survey.

apprenticeship system—Austria, Germany, and Switzerland—have succeeded in maintaining youth unemployment rates of 5 percent or less.

Youth unemployment rates may be disproportionately influenced by the economic cycle. As a result, the ratio of youth to adult unemployment rates is often regarded as a better indicator of the state of the youth labor market. This differential narrowed in most OECD countries between the cyclical peaks of 1979 and 1990, the major exception being Japan. But this apparent improvement in relative youth unemployment performance in the 1980s was not driven, as might have been expected, by increases in youth **employment/population** ratios. Rather, as OECD (1994d) points out, much of this improvement appears to have been driven by falling youth labor force participation rates, especially in many European countries, as young people have chosen to stay on longer in both secondary and tertiary education and training.¹⁴

Higher school enrollment rates are a hopeful sign for the future as they imply that new labor force entrants will have higher educational attainments than the current workforce which, in turn, should stand them in good stead as they seek a firm foothold in the labor market. But the wide disparities in youth unemployment rates across countries in Table 3 show that the school-to-work transition is an acute problem for young people in most OECD countries. Some countries do seem to manage this transition much better than others, (for example, the "dual system" of apprenticeship in Austria, Germany, and Switzerland as well as the Japanese **model**).¹⁵

At the other end of the age spectrum, unemployment rates for older workers have a much smaller range than for young workers, from a low of 2 to 3 percent in 1993 in Japan, Belgium, Greece, Italy, Portugal, Norway, and Switzerland to a high of almost 18 percent in Finland. Relative to prime-age workers, unemployment rates for older workers exhibited differing trends over the 1980s. They fell in a number of European countries and Japan, but rose in North America, Australia, and some of the **EFTA** countries.

These trends are strongly influenced by, among other factors,

changes in labor market policies and income support programs, for example, unemployment benefits, disability benefits, and early retirement schemes.¹⁶ For example, in many European countries, social security arrangements have encouraged older workers to withdraw from the labor market; in some cases, notably in the Netherlands and Sweden, early retirement has been encouraged by collective bargaining arrangements under which firms give incentives to older workers to leave their jobs. In other countries, where such incentives do not exist, older workers tend to bear a growing burden of permanent job loss as industries are restructured.

Female unemployment rates exhibit a very wide dispersion across OECD countries, ranging in 1993 from a low of less than 3 percent in Japan to a high of almost 30 percent in Spain. Unemployment rate differentials by gender narrowed over the 1980s in all countries except Greece, Japan, and Spain. It is noticeable from Table 3 that the ratio of female to male unemployment rates is persistently higher in most EC countries than it is in North America, Japan, EFTA, or Oceania. The United Kingdom and Ireland are the only exceptions to this pattern among the EC countries—there female rates are lower than male.

Unemployment by family status

The family composition of unemployment has been relatively neglected in international comparisons, mainly because of difficulties in assembling comparable data. But this dimension of the unemployment problem is an important one in assessing the hardship caused by unemployment and deriving appropriate policies. For example, the problem is somewhat different if most of the unemployed are living in families where there is at least one other member working, compared with a situation where a large proportion of the unemployed are living on their own or in lone-parent families.

Data assembled in OECD (1989) showed that in 1986, 46 percent of the unemployed in the United States and 41 percent in the EC were classified as living in households where no other family member was employed. Slightly more than half of unemployed married men and three-quarters of those heading lone-parent families were in such a

Table 4
Unemployment Rates by Family Status, 1991-92¹

As a Percentage of the Labor Force

	Living in Families			Not in Family		
	Husbands	Wives	Lone Parents	Youths	Total	Youths
North America	5.2	5.2	9.9	16.7	7.9	10.5
Canada	8.4	9.1	18.0	17.8	13.4	16.8
United states ²	4.8	4.8	9.6	16.6	7.5	10.3
European Community	4.3	8.7	15.5	19.0	10.1	13.8
Belgium	2.5	8.3	18.6	14.7	9.7	12.9
Denmark	5.0	8.4	17.7	8.1	11.2	12.6
France	4.8	10.0	18.6	23.6	10.9	15.6
Germany	2.4	4.9	9.2	3.0	5.7	4.9
Greece	1.9	7.4	12.7	25.7	10.4	21.4
Ireland	12.3	16.0	30.7	24.1	15.0	20.1
Italy	2.0	10.5	7.5	29.1	10.3	21.6
Luxembourg	0.6	2.7	2.9	2.9	1.4	2.2
Netherlands	3.3	8.5	16.4	10.5	9.7	12.2
Portugal	1.3	4.9	4.4	8.6	4.3	9.2
Spain	7.0	18.9	18.8	31.0	17.7	27.2
United Kingdom	6.7	5.8	16.9	13.7	13.1	14.3
EFTA	4.2	4.1	NA	NA	NA	NA
Austria	2.2	3.0	4.5	NA	5.5	NA
Finland	9.4	8.1	NA	NA	NA	NA
Norway	4.0	3.8	NA	NA	NA	NA
Sweden	3.2	2.6	NA	NA	NA	NA
Oceania	7.3	6.4	18.1	NA	16.0	NA
Australia ³	7.6	6.6	16.5	19.5	16.1	17.3
New Zealand	5.7	5.7	23.2	NA	15.0	NA

¹1991 for the EC countries, Austria, and New Zealand; 1992 for all other countries.

²Lone parents are men and women without a spouse who maintain families.

³Totals of people not in families include persons whose family status could not be determined.

Sources: For the EC countries, unpublished data provided by Eurostat; for all other countries, data provided by national statistical offices.

family situation. At the same time, about 50 percent of the unemployed were wives or children in married-couple families, of whom the vast majority were living in families where someone else was employed.

Unfortunately, it has not proved possible to update the 1989 OECD analysis. Instead, Table 4 presents 1991 data on unemployment rates by family status. In most countries for which the requisite data are available, unemployment rates for youths living at home tend to be higher than for their counterparts who are living on their own. In some cases, the differences are large. For example, the unemployment rates for youths living at home in France, Italy, and the United States in 1991 exceeded those for youths living on their own by six to eight percentage points.

Lone parents appear to be particularly vulnerable to above-average rates of unemployment. Table 4 shows that in many cases, they experience unemployment rates twice or more those of husbands or wives. Lone-parent families, the vast majority of whom are headed by a woman, are also disproportionately prevalent in low-income families.¹⁷ The causes of high unemployment and poverty among lone-parent families are complex, but the analysis in OECD (1994b, Chapter 9) suggests that the so-called "unemployment~povertytraps" arising from the interactions of public transfer programs with taxation systems and the availability of affordable child care are important determinants.

Unemployment rates by skill/educational attainments

It has become commonplace to argue that the current unemployment problem in OECD countries has been exacerbated by a universal shift in relative labor demand against unskilled labor, especially of males. For example, Balls (1993) argues that:

"The reason for the seemingly permanent rise in male **nonem**-
ployment lies elsewhere in the economic change which no devel-
oped country has avoided in the 1980s: the collapse in the demand
for unskilled male labor in [the] manufacturing industry"
(p.12).

Table 5
Unemployment Rates by Occupation¹

		Blue-collar	White-collar	Ratio
Australia	Peaks: 1973	1.6	1.4	1.2
	1981	4.7	2.5	1.9
	1990	6.5	3.0	2.2
	Troughs: 1975	5.1	2.9	1.8
	1983	10.2	3.9	2.6
	1992	10.2	4.2	2.4
Canada	Peaks: 1975	8.4	4.2	2.0
	1981	9.3	4.7	2.0
	1989	8.9	5.2	1.7
	Troughs: 1977	9.9	5.4	1.8
	1982	15.2	6.8	2.2
	1992	15.4	7.5	2.1
Finland	Peaks: 1976	3.5	1.9	1.8
	1990	4.5	1.9	2.4
	Troughs: 1978	10.0	2.9	3.4
	1993 ²	20.3	11.5	1.8
France	Peaks: 1982	8.3	5.5	1.5
	1991 [†]	10.2	6.8	1.5
	Troughs: 1985	11.8	6.3	1.9
	1993	12.6	8.8	1.4
Spain	Peaks: 1979	9.6	3.7	2.6
	1990	10.9	6.6	1.7
	Troughs: 1985	20.3	8.8	2.3
	1992	15.2	8.6	1.8
Sweden	Peaks: 1980	2.2	1.2	1.8
	1990	1.6	0.9	1.8
	Troughs: 1982	4.0	1.7	2.4
	1992	7.1	2.8	2.5
United Kingdom	Peaks: 1991	9.9	4.4	2.3
	Troughs: 1984	11.3	4.9	2.3
	1993	14.9	6.2	2.4
United States	Peaks: 1974	6.7	3.3	2.0
	1979	7.0	3.4	2.1
	1990	7.4	3.3	2.2
	Troughs: 1975	11.7	4.7	2.5
	1982	14.2	4.9	2.9
	1983	13.5	5.0	2.7
	1992	10.1	4.6	2.2

¹Blue-collar workers correspond to transport and production workers and laborers (occupational groups 7/8/9 of ISCO-1968) and white-collar workers to all professional, technical, administrative, managerial, clerical, and sales workers (occupational groups 0/1, 2,3,4 of ISCO-1968). For Australia, France, and the United Kingdom, occupations based on national classification systems have been reclassified to conform with ISCO-1968.

²Data refer to the third quarter.

Sources: ILO, Year Book of Labor Statistics, and data provided by national statistical offices.

Like many others, Balls attributes this shift in relative labor demands mainly to technological change rather than to increasing competition from low-wage developing countries.¹⁸ If this is the case, a trend rise in unemployment rates for **unskilled** relative to **skilled** workers would be expected. It is not easy to examine whether this has occurred in a cross-country perspective because international comparisons of unemployment by **skill** levels are very difficult to make with existing data sources. The concept of “**skills**” is a multidimensional one, for which there are no agreed international definitions. Consequently, there is no alternative to **working** with proxy measures such as unemployment rates by occupation or by educational attainment. Even with such data, it is necessary to rely upon a mix of national and international data sources whose comparability is fragile.

With these caveats in mind, Tables 5 and 6 present time-series data for a small sample of OECD countries. Table 5 presents unemployment rates for blue-collar and white-collar occupations at the peaks and troughs of the last three economic cycles. These data show that the risk of unemployment is much higher for blue-collar than it is for white-collar workers in all the OECD countries for which data are available. Typically, the ratio of blue-collar to white-collar unemployment rates is around two or more. There is, however, no common trend in the ratio across countries, thereby failing to provide solid support for the hypothesis of a trend shift in relative labor demands against **unskilled** workers.

Table 6 presents data on the second proxy for skills (that is, educational attainment), distinguishing between those with little or no educational-qualifications **and** those with the equivalent of upper secondary education or higher. Again, the common pattern is that workers with low educational-qualifications face a higher risk of unemployment than do **those with** an upper secondary education or better. On **the basis** of this proxy indicator of **skill** differentials, there is a common trend in seven of the eight countries over the 1980s: the ratio of unemployment rates for the least-educated workers rose relative to the more highly educated **group**.^{19,20} Australia was the sole exception to this trend. The rise in relative unemployment risk for the least-educated workers was especially marked in France, Germany, Italy, and the United States.

Table 6
Unemployment Rates by Educational Attainment

	Age grouping		Lower secondary or less	Upper secondary or higher	Ratio
Australia	(25-54)	1982	6.2	3.4	1.82
		1990	7.0	4.0	1.75
Canada ¹	(25-54)	1979	6.3	3.9	1.62
		1990	9.3	5.5	1.69
France	(25-64)	1979	4.6	3.3	1.39
		1990	10.7	5.6	1.92
Germany	(25-54)	1978	4.4	2.4	1.88
		1987	13.5	6.1	2.22
Italy	(25-64)	1980	2.9	5.2	0.56
		1989	7.4	7.7	0.96
Japan ²	(25-64)	1979	6.7	6.5	1.02
		1992	4.8	4.5	1.06
United Kingdom ³	(25-55)	1979	5.6	2.6	2.14
		1992	7.7	3.5	2.18
United States	(25-64)	1970	4.6	2.5	1.81
		1979	7.2	3.6	2.01
		1990	8.5	3.8	2.24

¹The two educational attainment groups are "high school or less" and "any post-secondary."

²The unemployed have been defined as those persons not employed, wishing to work, and seeking work. This definition is less restrictive than the one used in the monthly Japanese labor force survey which accounts for the higher unemployment rates, particularly for women, than usually reported for Japan.

³A major change took place in the definition of employment after 1979 and hence, the results for 1979 and 1990 (especially in level terms) are not strictly comparable.

Sources: Australia: Data provided by the Australian Bureau of Statistics (see ABS, Labor Force Status and Educational Attainment, Australia).
Canada: Data provided by Statistics Canada (see Statistics Canada, The Labor Force).
France: Data provided by INSEE (see INSEE, *Enquête sur l'emploi*).
Germany: Mikrozensus. data supplied by the national statistical authorities.
Italy: ISTAT, Rilevazione delle forze di lavoro.
Japan: Statistics Bureau, Management and Coordination Agency. Employment Status Survey.
United Kingdom: Data provided by the Employment Department.
United States: Calculated from data published in Bureau of Labor Statistics, Labor Force Statistics; derived from the Current Population Survey 1984-87, and the the Census. Statistical Abstract of the U.S.: 1992.

Thus, the evidence shows that unskilled workers face a higher risk of unemployment than skilled workers in those OECD countries for which data are available. While the evidence is not entirely conclusive, the data provide some support for the hypothesis that there has been a trend decline over the 1980s in many OECD countries in relative demand for low-skilled workers.

The duration of unemployment

It is well-known that, under certain conditions, the unemployment rate can be decomposed into two main components:

- the proportion of the labor force who enter unemployment
- the average time people who enter unemployment spend in unemployment.

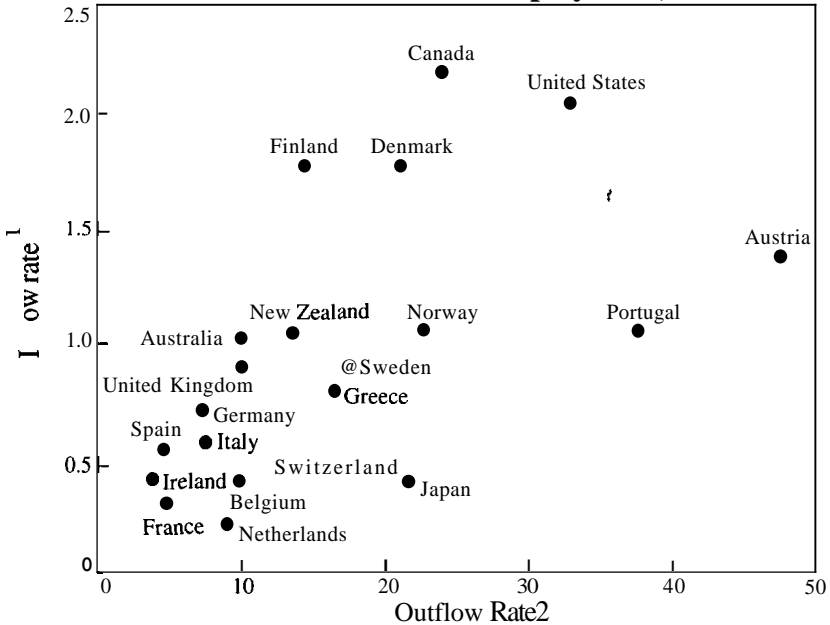
In a steady state, where inflows into and outflows from unemployment are stable and cancel out, the unemployment rate will be constant and the following identity will hold:²¹

unemployment rate = inflow rate into unemployment x
average completed duration of an unemployment spell.

Thus, the same unemployment rate in two countries could be associated with high inflow rates and relatively short durations in one country, whereas the other country could have the opposite pattern.

These different dynamics of unemployment are important for policy analysis. Long average spells of unemployment translate into a high proportion of long-term unemployed—defined as those unemployed continuously for one year or more—in total unemployment. It is generally considered that the long-term unemployed typically suffer greater economic and personal costs than do the short-term unemployed, for example, through deterioration of their human capital and loss of work motivation. It is also argued that employers may use the duration of an unemployment spell as a screening device, leading them to prefer to hire those who have been unemployed only for a relatively short time. In this way, the long-term unemployed become "outsiders"

**Chart 4,
Flows Into and Out of Unemployment, 1992**



¹ The inflow rate is proxied by the number of unemployed for less than one month as a percent of the population aged 15-64 less the unemployed.

² Outflows are estimated as the difference between the monthly level of inflows and the monthly average change in unemployment over one year, i.e. $outflows = I(t) - (C(t) - C(t-1))/12$ where: $I(t)$ are the monthly inflows and $C(t)$ and $C(t-1)$ the levels of unemployment for years t and $t-1$, respectively.

The outflow rate is expressed as a percent of total unemployment.

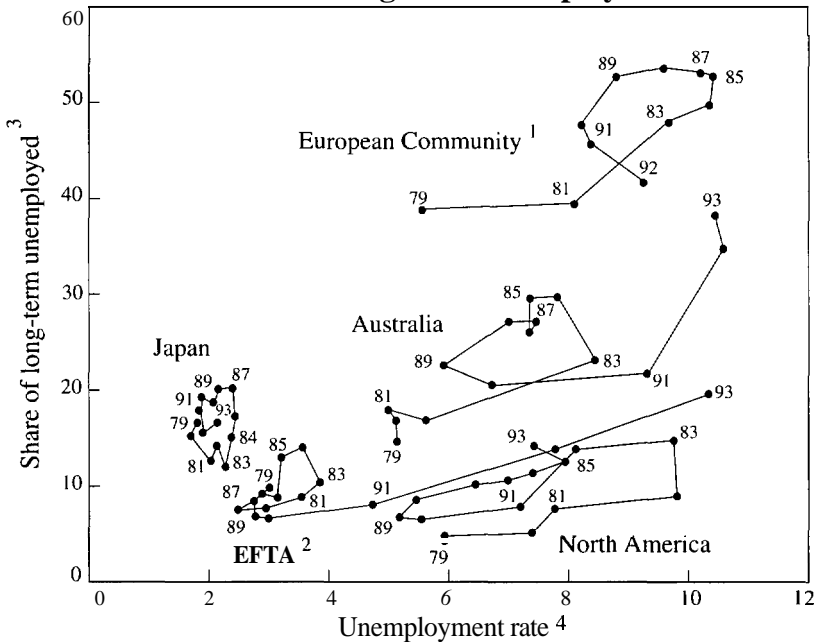
Source: OECD (1994a).

in the labor market and have little or no restraining influence on wage determination.²²

The incidence of long-term unemployment

Chart 4 shows that there are large differences in inflow and outflow rates across OECD countries. In particular, many EC countries and Japan have low inflow rates compared with North America, Finland, Denmark, and Austria. At the same time, the chart shows that these EC countries also tend to have relatively low outflow rates from unemployment compared with North America, Japan, and some EFTA countries.²³ This positive correlation between inflow and out-

**Chart 5
Total and Long-term Unemployment**



1. Excluding Luxembourg and Portugal for all years and Greece for 1979.
 2. Finland, Norway and Sweden only.
 3. Unemployed for one year and over as per cent of all unemployed.
 4. Standardized unemployment rates
- Source OECD (1994a).

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Chart 5 reveals striking differences across countries/regions in both the incidence of long-term unemployment and how it has changed since 1979. In the EC, over 40 percent of the unemployed in 1992 had been out of work for over a year, compared with 37 percent in Australia, around 18 percent in EFTA and in Japan, and just 12 percent in North America (data for the latter four countries/regions refer to 1993). Second, for any given unemployment rate, the share of long-term unemployment is much higher in the EC than in any of the other countries/regions. Finally, the share of the long-term unemployed also appears to have ratcheted-up over the 1980s more in the EC than elsewhere.

Data on the incidence of long-term unemployment by age (not shown here) show that youths typically experience shorter spells of unemployment than do prime-age or older workers. At the same time, the risk of long-term unemployment for youths is very high in some EC countries: in the early 1990s between 40 and 60 percent of the young unemployed in Belgium, Ireland, Italy, and Spain had been out of work for over a year. Older workers tend to experience the greatest risk of long-term unemployment; for example, in eleven out of nineteen OECD countries for which data are available, more than 50 percent of unemployed males aged 55 and over had been out of work for a year or more in 1992.

The relationship between long-term unemployment and real wage pressures

Insider-outsider models of unemployment predict that the long-term unemployed can be expected to exert relatively little impact on wage determination. This hypothesis has been assessed recently by Elmeskov and MacFarlan (1993) using data for a large sample of OECD countries. Drawing on econometric estimates of wage equations reported in OECD (1993a, Chapter 3), they decompose the estimated semi-elasticities of real wage growth with respect to the rates of short-term and long-term unemployment (both expressed as a proportion of the total labor force).

Their results show that in all countries, in line with the hypothesis, the short-term unemployment rate apparently exerts much more of a

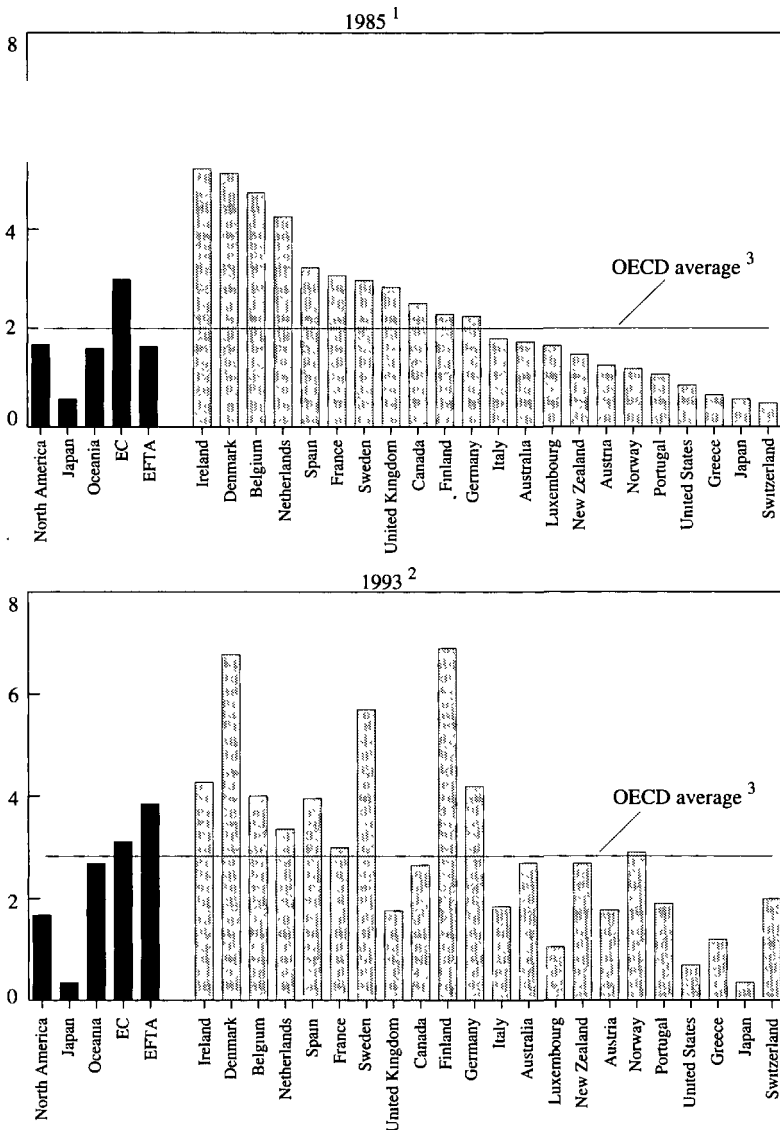
restraining influence on real wage growth than does the long-term unemployment rate. At the same time, the long-term unemployment rate appears to have a small restraining influence on real wage growth in most countries. To the extent that such estimates are robust, they provide a foundation for the argument that there is a sound efficiency case, in addition to equity considerations, for targeting labor market policies to the long-term unemployed.²⁵ Because their wage bargaining power is relatively weak, policies which can assist more of the long-term unemployed back into employment should lead to a fall in the non-accelerating inflation rate of unemployment (NAIRU).²⁶

Labor market measures to combat high unemployment

Having presented a detailed picture of unemployment in OECD countries and how it has changed over the past few decades, it is natural to address also the costs of unemployment. This is not a simple matter since these costs have many economic and social dimensions, ranging from the loss in output due to labor slack to possible effects of unemployment on health and criminality. It is impossible to do justice to all these different elements of the costs of unemployment in this paper. Instead, the discussion here is confined to public spending on labor market programs to reduce unemployment, drawing on an internationally comparable data set which the OECD has constructed.

Public spending on labor market programs absorbs significant shares of national resources in many OECD countries, these policies being expected to achieve a variety of economic and social objectives. For analytical and policy purposes, the OECD splits this spending into so-called "active" and "passive" measures. The former comprise a wide range of policies aiming at improving the access of the unemployed to the labor market and jobs, job-related skills, and the functioning of the labor market.²⁷ Passive measures cover unemployment and related social benefits and early retirement benefits. For several years, the OECD has been urging its member countries to adopt a twin strategy: (1) to switch resources from passive to active measures, and (2) to enhance the effectiveness of active measures. Furthermore, these principles were endorsed by OECD labor ministers at their meeting in January 1992.

Chart 6
Public Expenditure on Labor Market Measures
Percentage of GDP



1. 1986 for Luxembourg, Portugal and Denmark; and 1987 for Japan.

2. 1991 for Luxembourg and Ireland; 1992 for Belgium, France, Italy, Japan, Netherlands, and New Zealand.

3. Unweighted average.
 Source: OECD (1994d).

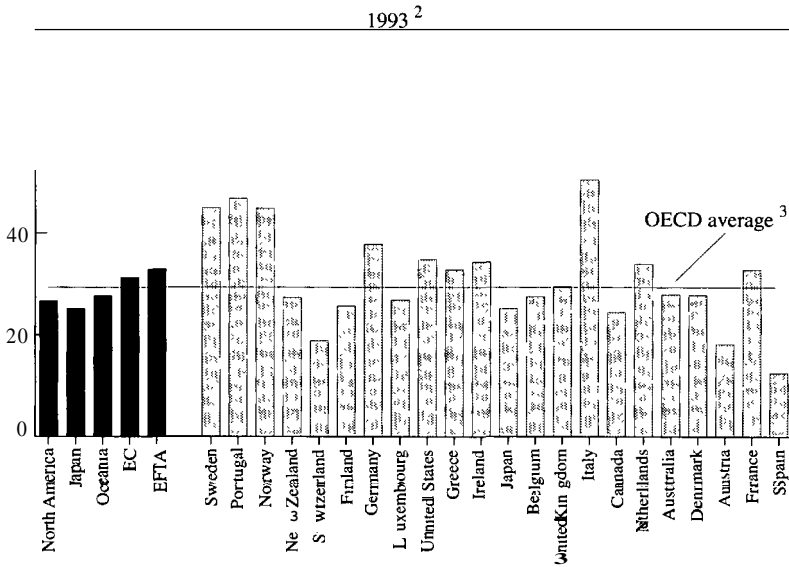
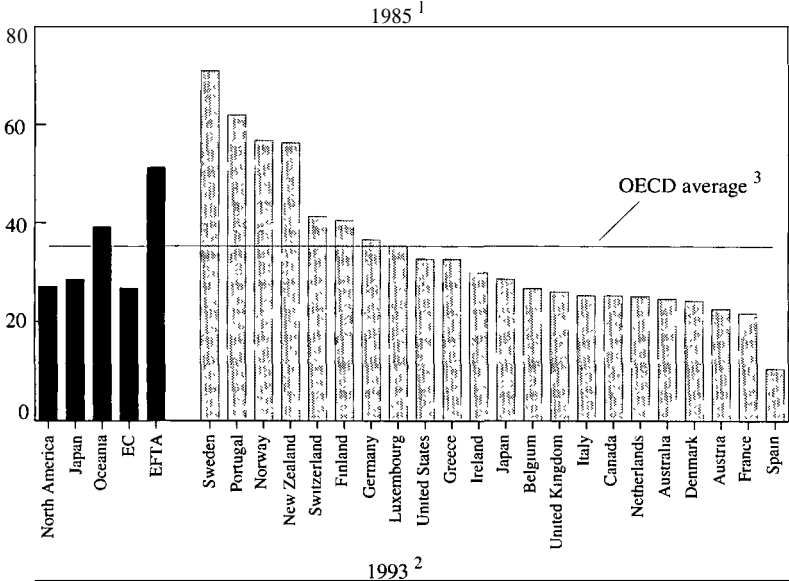
Chart 6 shows data on public spending on labor market measures for 1985 (the first year for which the data are available) and 1993. It reveals that the typical OECD country spent 2 percent of its GDP on labor market measures in 1985 compared with 2.8 percent in 1993. There is wide variation across countries in the share of spending on labor market measures, ranging in 1993 from a low of less than 0.4 percent of GDP in Japan to a high of almost 7 percent in Denmark and Finland. Data (not shown here) on program participation rates, that is, the proportion of the labor force that participates in these programs, reveals a similar wide disparity across countries, with the rates in 1993 ranging from less than 3 percent of the labor force in the United Kingdom, the United States, Greece, and Austria to more than 14 percent in Denmark.

Did countries manage to switch resources into active measures? Progress has been very limited: for the typical OECD country, spending on active measures rose only from 0.7 percent of GDP in 1985 to 0.9 percent in 1993. Chart 7 reveals that the share of spending on active measures as a proportion of total public spending on labor market programs declined between 1985 and 1993 in half of the countries. Furthermore, the only country where spending on active measures exceeded spending on passive measures in 1993 was Italy. In the period 1985-92, this was so in Sweden too, but the steep rise in unemployment since 1991 has forced the Swedish authorities to devote an escalating share of national resources to income support, up from 0.9 percent of GDP in 1990 to 3.1 percent in 1993.

Has public spending on labor market measures, particularly on active measures, had any discernible effects on labor market and economic performance? In addressing this key question, I confine my attention to the macroeconomic impacts of labor market policies; microeconomic evidence from a wide range of program-level evaluation studies is reviewed elsewhere—see OECD (1993a, Chapter 2) and the paper by Lawrence Katz in this volume.

The evidence suggests that spending on active measures does appear indeed to lower the NAIRU in the majority of countries by facilitating wage moderation—see OECD (1993a), which analyzes pooled cross-country data for the period 1985-90. A similar result is reported by

Chart 7
Spending on Active Programs
 Percentage of total spending on labor market measures



1. 1986 for Luxembourg, Portugal and Denmark; and 1987 for Japan.

2. 1991 for Luxembourg and Ireland; 1992 for Belgium, France, Italy, Japan, Netherlands, and New Zealand.

3. Unweighted average.

Source: OECD (1994d).

Layard, Nickell, and Jackman (1991). But this finding is not a universal one. Since active labor market policies raise the welfare of the unemployed relative to the employed population, they may weaken incentives for real wage restraint. Studies of some Nordic countries reviewed by Calmfors (1994) found that active measures appeared to raise wage pressures, thereby pushing up the NAIRU.

In theory, active measures should also reduce labor market mismatches, thereby contributing to greater labor market efficiency. In some cross-country work which I and a former colleague at the OECD, François Delorme, have carried out on estimating Beveridge curves for a large sample of OECD countries, we found that spending on active measures appears to be associated with an inward shift of the curve. This result indicates that spending on active measures enhances the efficiency of the matching process in the labor market.²⁸

Work on the macroeconomic effects of labor market programs is in its infancy, and the significance of these results should not be exaggerated.²⁹ Nevertheless, they do suggest that switching resources away from passive income support to active measures may not only alter the composition of employment in favor of targeted groups of workers, but also could enhance labor market efficiency and lower unemployment. Judged in this light, the very limited progress made by OECD countries over the past ten years in accomplishing this objective is disappointing.

Summary and conclusions

The rising tide of unemployment has been a major blot on the economic record of the OECD countries since the early 1970s. Currently, OECD unemployment is close to a record high and, even though a cyclical recovery is now under way throughout the OECD area, this is not expected to make major or rapid inroads into the total of 35 million persons unemployed. Indeed, the latest OECD Secretariat medium-term projections suggest that, in the absence of major changes in economic policies, the OECD unemployment rate may decline only slowly, perhaps to 7½ percent by the year 2000 (10½ percent for OECD Europe).³⁰

A review of the trends in unemployment since 1950 shows two important stylized facts. First, the rising trend has been spread very unevenly across regions and countries. The EC countries, Australia, and New Zealand have witnessed a steep trend rise over the period, whereas there has only been a small upward drift in unemployment in the United States and Japan. Second, unemployment rates in many countries, especially in Europe, appear to exhibit "persistence:" once the unemployment rate has risen in response to a shock, there is a noticeable tendency for it to stick around the higher level.

Measured unemployment, large-scale though that is, does not capture the full extent of labor market slack. International comparisons of "extended" measures of unemployment—which take account of discouraged workers and involuntary part-timers as well as the unemployed—must be made with great caution. Nevertheless, recent calculations by the OECD Secretariat suggest that taking account of these additional elements could add between 40 and 50 percent to the current OECD unemployment total of 35 million. These extended measures also show somewhat more convergence in the size of labor slack across OECD countries than do the standardized unemployment rates alone. At the same time, it is impossible to adjust these estimates for the proportion of the unemployed who are engaged in concealed employment. But the evidence suggests that the standardized rates are still an extremely useful indicator of wage and inflation pressures.

The burden of high unemployment is shared unevenly across labor force groups. The young typically have unemployment rates two to three times larger than those of adults. But there is a wide disparity, not only in terms of the ratio of youth to adult rates but also in terms of how this differential has varied over the 1980s. Many of the young unemployed live with their parents; in most countries youngsters living at home have higher unemployment rates than do their counterparts who are living on their own. Less than half of the unemployed live in households where no other family member is employed. Lone parents, most of whom are women, are particularly hard-hit by unemployment. In all countries, unskilled workers face a higher risk of unemployment than do skilled workers, and there are some indications that this risk has risen over the past decade.

The fact that a large proportion of the unemployed have been out of work for over a year is a major preoccupation for policymakers. In the EC, more than 40 percent of the unemployed fall into this category, and the incidence of long-term unemployment has ratcheted up over the past decade, unlike the situation in North America and Japan. Cross-country evidence suggests that the long-term unemployed exert much less of a restraining influence on real wage growth than do the short-term unemployed. Accordingly there appears to be a good economic case for targeting labor market measures to the long-term unemployed.

Public spending on labor market measures to combat high unemployment typically absorbs 2 to 3 percent of GDP. In the great majority of OECD countries, most of this spending goes to income support rather than into active measures which aim to facilitate the matching of workers to jobs, keeping the unemployed in contact with the labor market while at the same time, improving their skills. Progress in switching resources from passive to active measures has been very slow over the past decade. This is disappointing, because there is evidence from both microeconomic and macroeconomic studies that well-designed, targeted, and monitored active measures can help reduce unemployment.

The present unemployment problem has built up over several decades and will take time to unwind. It is also clear, as the OECD *Jobs Study* emphasizes, that a successful strategy to cut unemployment durably will demand "a balanced mix of policies which mutually reinforce innovative and adaptive capacity and improve conditions for job creation" (1994a, p.43). Implementing such a strategy will demand a strong political will to convince electorates of the need to accept the radical changes in economic and social policies and institutions required to lower unemployment without sparking off a renewed bout of inflation pressures.

Author's Note: In preparing this paper, I have drawn extensively on work by the OECD Secretariat for the OECD *Jobs Study*, in particular a paper prepared by Mark Keese. Helpful comments were received from Norman Bowers, Steven Englander, John Evans, Robert Fay, Michael Feiner, Jean-Pierre Carson, David Grubb, Mark Keese, John Llewellyn, Mark Pearson, and Peter Scherer. I would also like to acknowledge the assistance of Pascal Marianna. The views expressed are my own and cannot be held to represent those of the OECD or its member governments.

Endnotes

¹OECD (1994a, p. 7)

²*Ibid.*, p. 41.

³See OECD (1994c).

⁴For a review of recent evidence on the persistence of unemployment in OECD countries, see Elmeskov and MacFarlan (1993). This paper argues that slow adjustment of both wages and employment toward long-run equilibrium in response to demand and supply shocks is an important part of the explanation of unemployment persistence.

⁵The standardized unemployment rates, compiled for seventeen OECD countries, are based on definitions of the 13th International Conference of Labor Statisticians (generally referred to as the ILO guidelines). Under these definitions, the unemployed are those of working age who, in a specified period, are without work and are both available for, and have taken specific steps to find, work. The uniform application of the definitions in principle results in estimates that are more internationally comparable than those based on national definitions. Eurostat (the Statistical Office of the European Communities) also publishes comparable unemployment rates for all EC countries. There are some differences between the OECD and Eurostat estimates, reflecting mainly differences in interpretation of the ILO guidelines, methods of updating survey benchmarks, and seasonal adjustment, which the two organizations are working to eliminate.

⁶For details, see Keese (1994).

⁷The example of Belgium is instructive. Between 1982 and 1991, "broad unemployment" in full-time equivalents — including, in addition to unemployment as usually defined, part-time unemployed, persons receiving unemployment benefit but exempted from job search for specific reasons, and persons on direct job creation programs — rose by 25 percent (see OECD, 1994e). But the standardized unemployment rate for Belgium fell from 12.6 percent to 7.2 percent over the same period.

⁸See OECD (1986, Chapter III) for a review of the limited evidence on concealed employment.

⁹See OECD (1993a). Since 1976, the Bureau of Labor Statistics has published a range of alternative unemployment measures for the United States, known as U-1 to U-7. It has only recently begun to extend these calculations to some other OECD countries — see Sorrentino (1993) for details.

¹⁰The definitions of these indicators of labor market slack are:

(i) including involuntary part-time workers (U-6 type measure): $(SU + .5(IPT)) / LF$; and

(ii) including both discouraged and involuntary part-time workers (U-7 type measure):

$(SU + DW + .5(IPT)) / (LF + DW)$

where SU = number of unemployed persons based on standardized definitions,

DW = number of discouraged workers,

LF = labor force,

IPT = number of involuntary part-time workers, which comprises both those working part-time for economic reasons and those who could not find full-time work.

The U-6 and U-7 type measures include half the number of involuntary part-time workers, making the assumption that they are working about half the number of hours of an individual working full-time.

It should be noted that the BLS definition of U-6 is somewhat different: it is "total full-time job seekers, plus half of the part-time job seekers, plus half of the total number of persons working part-time for economic reasons, as a percent of the civilian labor force, less half of the part-time labor force" — see Sorrentino (1993).

¹¹**Sorrentino** (1993) shows a much smaller gap between the Japanese and U.S. U-7 rates. The difference mainly arises from the treatment of discouraged workers. As Sorrentino recognizes, the special labor force surveys in Japan do not allow for a very precise definition of discouraged workers. Sorrentino prefers to work with a range of estimates which include some groups which the OECD Secretariat estimates in Table 2 exclude. For a more detailed discussion of the differences between the OECD and the BLS estimates of discouraged workers in Japan, see OECD (1987, pp. 211-12).

¹²**See** Balls (1993) for a trenchant statement of this **hypothesis**.

¹³**The** unemployment rate in these regressions is defined relative to the total population aged between 15 and 64 years rather than the labor force, so as to have the same denominator as the labor force participation rate. This allows Elmeskov and **Pichelmann** to test the restriction that the effects on real wages of unemployment and nonemployment are identical.

¹⁴**OECD** (1994d) also highlights the fact that there are very large differences across countries in the proportions of **young people** who combine schooling and work (largely in part-time jobs). Combining schooling and work is much more common in the English-speaking countries and Denmark than in most continental European countries and Japan.

¹⁵**Some** of the main lessons from these successful systems are reviewed in the editorial in OECD (1994d).

¹⁶**See** OECD (1992, Chapter 5) for a detailed review of trends in labor force participation and retirement of older workers.

¹⁷**See** OECD (1993b).

¹⁸**This** issue has been much debated in the U.S. literature. See the papers in Bhagwati and Koster (1993) and the paper by Paul **Krugman** in this volume.

¹⁹**Comparisons** over **time** are affected by changes in the composition of the labor force. For example, the proportion of the work force with lower secondary education or less has been declining in all countries which may have resulted in a fall in average **skill** levels for the least-educated workers and, hence, correspondingly higher unemployment rates.

²⁰**Trends** in relative earnings also point to a similar conclusion. The 1980s witnessed an increase in relative earnings of highly educated workers in many OECD countries contrasting with declines in the 1970s. This rise in the earnings premium **associated** with university-level education occurred despite a continued increase in the supply of highly educated workers. After reviewing the evidence, OECD (1993a, p. 177) concluded that "an important cause of the swing to increased dispersion of earnings in the 1980s was an increase in the relative demand for highly educated workers."

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²¹It is possible to extend this identity to allow for the possibility that a person can enter the pool of unemployed more than once during a given time period. The issue of multiple spells of unemployment is not discussed here. For a review of cross-country evidence on the phenomenon, see OECD (1985).

²²See Lindbeck and Snower (1989) for the theoretical foundations of insider-outsider models. Layard, Nickell, and Jackman (1991) and Elmeskov and MacFarlan (1993) report empirical tests of these models using cross-country data sets.

²³It should be noted that outflow rates for most European countries are based on single readings taken one year apart and, hence, are likely to have some downward bias compared with data for Canada, Italy, Norway, Spain, Sweden, and the United States where inflows are based on monthly or quarterly readings.

²⁴See OECD (1994b), Chapter 8) for a detailed review of these arguments.

²⁵This case is made in OECD (1994a). It has also been argued strongly by Snower (1994). He proposes that the long-term unemployed be allowed to convert part of their unemployment benefit entitlements into an employment subsidy for any firm which will hire them.

²⁶The original proponents of this argument were Baily and Tobin (1978). See also Calmfors (1994) for a review of the theoretical arguments in favor of targeting labor market policies.

²⁷Spending on active measures is, in turn, split into five components: public employment services and administration, labor market training, youth measures, subsidized employment, and measures for the disabled. For further details, see OECD (1993a, Chapter 2).

²⁸A similar result is reported by Jackman, Pissarides, and Savouri (1990).

²⁹Calmfors (1994) highlights various statistical problems with such econometric results, stressing the simultaneity problem between unemployment and spending on active measures.

³⁰For details on these projections, see OECD (1994c, pp. 26-30).

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