

Chapter 2

The Labor Market

Israel's labor market was affected by the deep recession in 2001, the first indications of which were evident in 2000:IV. The slump, which stemmed from the security crisis and the global slowdown, was expressed in a steep 3.5 percent drop in labor input in the business sector, reflecting a decline in both the number of persons employed (1.5 percent) and the average number of hours worked (2 percent). There was a lag in the response of the unemployment rate and business-sector wage to the slowdown, which came in the second half of the year, when the unemployment rate soared (reaching 10.2 percent in 2001:IV) and the rate at which the real business-sector wage rose moderated. The delayed reaction of unemployment and wages to the economic situation was due to several factors, among them the sharp shift to recession and uncertainty regarding its duration and intensity, the marked expansion of public-services employment, which offset 0.4 percentage points of the rise in the unemployment rate, and the notable reduction in the labor input of Palestinians. The recession and the security incidents impacted on most of the business sector especially on construction, which has been experiencing difficulties for several years, and on hotel and catering services, which in the past had served to offset the rise in the unemployment rate. Because of the relatively large share of Palestinians in employment in these industries, the marked contraction of their numbers moderated the effect of the slump on Israelis.

Average unit labor cost rose by 5.5 percent in 2001, due to the marked increase in wages, which was accompanied by a fall in the average number of hours worked and a slight increase in labor productivity. The real average wage per employee post (excluding Palestinians) rose by 2.5 percent—2.5 percent in the business sector and 2.7 percent in the public services. The wage increases were led by business services, where employment expanded, and by agriculture, where employment contracted considerably.

1. MAIN DEVELOPMENTS

The labor market was affected by three main interconnected factors in 2001. 1. The deep recession evident since 2000:IV in the wake of the global slowdown and the security incidents, leading to a sharp fall in the demand for labor. 2. The contraction of the supply of labor from the territories as a result of the security incidents. 3. The faster expansion of employment in the public services than of the labor force. The first two factors were expressed in a steep drop (3.5 percent) in labor input in the business sector, while the third served to offset the effect of the recession on Israel's employment and unemployment.

The effect of the slump was expressed in the decline in employment (including foreign and Palestinian workers) in the business sector back in 2000:IV. The security incidents, which began in October 2000, intensified the impact of the recession on employment, leading to a sharp fall in the supply of labor from the territories. However, since the recession was felt particularly in industries which were Palestinian labor-intensive, the reduction in their number served in part to offset the effect of the slump on the employment of Israelis, and on the unemployment rate. The number of foreign workers continued to rise despite the recession, but this offset only part of the decline in workers from the territories.

The rise in the unemployment rate due to the recession came with a nine-month lag. This delay, which is characteristic of a turning point in the growth rate, derived from several factors, which moderated the response of the unemployment rate to the recession. First, at the time of the rapid downturn there was uncertainty as regards the duration and intensity of the recession. This led employers to refrain from dismissing workers and instead to temporarily cut labor input by reducing hours worked or obliging employees to take vacations. During the year, as the recession picture became clearer, employers also began to reduce their staff, and this was expressed in the sharp increase in the unemployment rate in the second half of 2001. Second, the number of persons employed in the public services in 2001:I was up by 3.6 percent over 2000:IV, remaining at that level until the end of the year. This expansion of public-services employment (4.4 percent) offset 0.4 percentage points of the rise in the unemployment rate. Third, since Palestinian-worker-intensive industries—tourism and construction—were particularly hard hit by the recession, the fall in demand for these workers was offset by the decline in supply of Palestinians because of the *intifada*, so that the effect on the employment of Israelis and the unemployment rate was relatively moderate.

Unit labor cost in the business sector rose by 5.5 percent in 2001 because real wage costs increased by more than labor productivity (output per hour worked). The rise in labor cost came after a slight decline in 2000, due mainly to the handsome increase in labor productivity. The marked rise of wages in the business sector despite the slump was due in part to the changed by-industry structure of employment and the shift in the composition of employment within industries (because of technological changes, layoffs, slower intake of new employees, etc.). Another reason for the delay in the response of wages to the recession was the lower than expected inflation rate. Nonetheless, these factors are not in themselves enough to fully explain the increase in the real wage and

The rise in the unemployment rate in the wake of the recession occurred with a lag which is characteristic of a turning point in the growth rate. Unemployment rose steeply only in 2001:III.

Unit labor cost rose by more than 5 percent, due to the rapid rise in wages alongside the smaller increase in labor productivity.

Table 2.1
Principal Labor Market Indicators, 2001

(percent)

	Increase or decrease from same quarter in 2000 ^a				2000:IV	Increase or decrease from previous quarter ^b			
	I	II	III	IV		I	II	III	IV
	Working-age population	2.7	2.7	2.6		2.5			
<i>of which</i> Immigrants ^c	22.3	-31.3	-25.8	-34.0					
Participation rate in civilian labor force ^d									
Total	53.8	54.1	55.1	54.5	54.2	54.3	54.3	54.4	54.4
Women	48.1	47.9	48.6	49.0	48.2	48.4	48.1	48.2	48.5
Men	59.8	60.7	61.9	60.3	60.6	60.6	60.8	60.9	60.7
Civilian labor force	3.4	2.3	2.6	2.9	0.5	0.7	0.6	0.9	0.4
Israelis employed	3.5	2.4	1.9	1.1	0.5	0.9	0.4	0.0	-0.3
Full-time employees	0.9	6.0	-7.6	-3.4	-0.1	-1.4	2.7	-3.7	-2.7
Part-time employees	7.3	-6.6	26.1	13.1	3.6	5.6	-7.3	13.0	3.3
Temporarily absent from work	23.4	8.0	16.5	-3.6	0.6	5.0	4.5	-5.2	-0.1
General government employees	6.9	3.0	3.9	4.0	0.7	3.6	-0.2	-0.3	0.8
Business-sector employees (Israelis)	2.0	2.2	1.1	-0.1	0.1	-0.1	1.3	-0.3	-1.2
Business-sector employees (Palestinians) ^e	-71.9	-86.0	-96.4	-89.5					
Foreign workers in business sector ^e	11.3	16.7	16.6	16.0					
Average weekly hours worked per business-sector Israeli employee	-1.9	0.5	-5.3	-2.0	-1.5	-1.0	-0.1	-2.0	0.0
Israeli labor input in business sector	0.1	2.7	-4.3	-2.1	-1.4	-1.0	1.2	-2.3	-1.2
Business-sector labor input of Palestinian workers ^e	-70.0	-85.9	-96.6	-91.0					
Business-sector labor input of foreign workers ^e	13.8	17.9	17.2	12.2					
Unemployment rate ^d	8.1	8.2	10.3	10.5	8.8	8.6	8.8	9.6	10.2
Number of unemployed persons	2.5	1.6	9.2	21.4	-0.1	-1.6	2.7	10.1	7.6
Real wage per employee post, ^f total	4.9	5.4	0.9	-1.1					
Business sector	5.7	4.6	1.6	-1.7					
General government	2.8	7.2	-0.6	1.1					
Business-sector unit labor cost					0.6	6.9	2.6	-1.9	2.8
Net business-sector domestic product per hour worked ^g					-3.4	0.3	-1.8	2.7	-5.3

^a Unadjusted data.^e National Accounts data.^b Seasonally adjusted data.^f Excluding foreign workers.^c Immigrants who arrived in the period.^g At constant prices.^d Actual level, not rates of change.

SOURCE: Central Bureau of Statistics, and National Accounts data.

unit labor costs. Developments in the sphere of wages in recent years indicate that despite the greater flexibility of the wage-determining mechanism in the last decade, it still contains rigidities preventing wages from being determined at the level of the firm in accordance with its economic situation, thus delaying and weakening the adjustment of the average wage to the state of the economy. These include the linkage of the

minimum wage and most transfer payments to the average wage, which serves to raise wages also in industries in which productivity has not increased, the formal and informal wage linkages between occupations and industries, and wage drift in the public sector, which could trickle down to business-sector wages via the various linkages between industries, and particularly through that between the minimum wage and the average wage. Note that the transition from a centralized mechanism for wage-determination to more competitive ones—as industry- and occupation-specific unions grew stronger, there was greater resort to personal contracts, and the General Federation of Labor (*Histadrut*) became weaker—was expressed in the 1990s in the greater rigidity of the wage-determination mechanism.¹

Despite the recession, 2001 was a year of long struggles and strikes in the public services.

Despite the state of the economy, which required restraint regarding wage demands by workers, 2001 was a year of long struggles and strikes in the public services. The 2.7 percent rise in real wages in the public services (3.8 percent in nominal terms) reflects *inter alia* the influence of the wage agreement signed at the beginning of the year with large associations of professional employees (graduates in the social sciences and humanities, engineers, technicians, etc., excluding teachers, physicians, nurses, academics, and several other groups). According to that agreement, workers received a wage increment of 3.6 percent as of January 2001, as well as a one-off payment of NIS 1,250. The wage hike in the public services reflects the direct effect of the increase in the minimum wage in April 2001, estimated at 0.5 percent, as well as of wage drift, estimated at 2–3 percent. The wage agreement did not meet all the *Histadrut*'s wage demands for 2001, as the workers undertook not to strike only until July, and the employers undertook to conduct negotiations regarding the *Histadrut*'s other demands, which amounted to an additional 2.4 percent wage hike in 2001 and at the beginning of 2002. In addition, other agreements were signed during the year with many other unions (see section on wages).

¹ Lars Calmfors and John Drifill (1988), "Bargaining Structure, Corporatism, and Macroeconomic Performance," *Economic Policy*, 6 (April). The study found a non-monotonic correlation between macroeconomic performance and the concentration of wage negotiations. Macroeconomic performance was better and unemployment rates lower in the two extreme cases—national negotiations and decentralized negotiations. Other studies have yielded mixed results, and are not unequivocal with regard to the relation between centralized wage negotiations and macroeconomic performance. A long-term comparison between the 1990s and the 1980s shows some support for the view that the employment rate fell more sharply in countries which went over to less centralized or coordinated negotiations than in other countries; see Yael Artstein (2001), "Flexibility in Israel's Labor Market," in Avi Ben Bassat (ed.), *From Government Intervention to a Market Economy; Articles in Memory of Michael Bruno*, Am Oved publishers (Hebrew).

Box 2.1**Government Policy to Increase Participation and Employment Rates, and to Reduce Unemployment**

It is generally agreed that a government should have three main economic aims in the labor market: to increase the participation rate, expand employment, and reduce unemployment. Government policy aimed at attaining those objectives can contribute to attaining other declared social aims, such as reducing income inequality and poverty. These aims have never been determined as formal policy objectives for the labor market, and hence no clear plan has been delineated for attaining them. Moreover, some of the existing policy trends in the labor market have had the opposite result; the participation rate of men is falling rapidly, and the gap between it and that of men in advanced countries is widening. The employment rate of Israelis is not growing to its full potential, while the unemployment, poverty, and inequality rates are rising.

The policy changes required fall into four main spheres. The first is macroeconomic policy, which aspires to stimulate sustainable growth and is not discussed here. The second is increasing the expected utility from going to work, and enlarging the chances of finding work by improving individuals' human capital, the physical infrastructure, and altering the current policy regarding transfer payments. The third consists of policy measures designed to make the wage mechanism more flexible, so that wages are determined in accordance with the economic situation, and unemployment can be reduced. The fourth is dealing specifically with foci of unemployment. Note that some of these policy measures could have the opposite effect, and that the policy mix as a whole can be determined only by taking all the costs—both financial and other—of each measure into account. The main measures that could help in attaining the objectives are as follows:

1. Enhancing individuals' human capital by improving the system of vocational training in the short term and the education system in the long term. Enhancing human capital will ameliorate individuals' labor productivity, thereby raising their expected wage and their chances of finding work. Improving the education system is the key to providing equal opportunities in the labor market, and it is therefore important to give priority to raising the level of education among the weaker segment of the population, thereby reducing gaps in attainments. In order to achieve these objectives, policy-makers must implement various new programs and reinforce existing ones in two areas, the education system and adult education and vocational training.

In *the education system*, a number of measures should be introduced: a. The share of subsidies giving preference to improving the level of education among the weaker section of the population should be increased; b. A larger increment

should be paid to graduate teachers in poorer schools and regions, in order to increase the incentive for these teachers to work in those areas; c. There should be wider use of programs that reward teachers on the basis of pupils' results; d. Class sizes should be reduced, especially in low-income areas and schools, in view of studies in Israel and abroad showing the negative effect of class size on educational attainment, especially among underprivileged children;¹ e. Hours of tuition should be increased; f. A joint core-program should be worked out for the entire education system, focusing on essential subjects such as English, mathematics, and computers.

In *adult education and vocational training* the following measures should be introduced: a. Complementary education programs should be expanded to enable candidates to join vocational training schemes for which basic education is a prerequisite; b. The vocational training system should be made more efficient; c. Incentives should be granted to providers of vocational training, rewarding them for success in retraining workers; d. Training and placement functions should be combined under the same roof, thereby making the vocational training system more efficient; e. The success of government vocational training programs should be closely monitored, e.g., by comparing the achievements of graduates of such programs with those of control groups; f. Manufacturers and potential employers in various industries should be involved in determining training spheres and programs, as well as in implementing them; in particular, the sphere of on-the-job training should be expanded, as should aid for vocational training that is not in manufacturing.

2. The employment of non-Israelis should be made less worthwhile, so that Israeli workers will be better able to compete with them on equal or preferential terms. This could be achieved by the following: a. Applying the Minimum Wage Law and other labor legislation, including that concerning foreign workers, to employers of foreign workers; b. Implementing the section of the Economic Arrangements Law that imposes a levy on employers of foreign workers, and the section requiring them to pay into a fund for a grant to be paid to workers when they leave Israel. The subject should be dealt with by a government body responsible for all the topics associated with the employment of foreign workers; c. The number of permits should be reduced, and the restrictions on the number of foreign workers should be implemented more rigorously, *inter alia* by applying stricter criteria regarding administrative fines for offenders; d. The system of permits for foreign workers should be changed, allocating them directly to the worker rather than the employer, as the dependence on individual employers enables them to pay a wage that is lower than the competitive wage and to provide conditions that are below a minimum standard.

¹ Joshua Angrist and Victor Lavy (1999), "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement," *Quarterly Journal of Economics*, 114.

3. The negative incentives to participate in the labor force and employment which are embodied in the current system of transfer payments should be reduced. In spite of the important role of transfer payments in reducing poverty and income inequality, they cannot provide a fundamental solution to the problem of poverty, which stems primarily from the low participation rate of potential wage-earners.² The negative incentives for labor-force participation represented by the current system of transfer payments, especially the fact that eligibility is contingent on a low level of income from work or the absence of work, and the ineffective application of employment tests for candidates for income support, serve to increase the extent of poverty and inequality in the long run. In order to contend with the problematic nature of the system the following steps must be taken in order to make it less worthwhile to receive benefits and more worthwhile to work: a. Deductions from payments to individuals who choose to go out to work should be reduced, and the criteria regarding eligibility for benefits should be applied more efficiently; b. Means tests should be introduced that take all the components of income into account, not only income from labor, as is currently customary; c. Information about the extent and kinds of benefits an individual receives should be concentrated under one roof (preferably the National Insurance Institute); d. The employment test for work-seekers who are eligible for unemployment benefit should be applied more efficiently. The test will become more efficient as the placement program improves; e. The increase in the child allowance that enables many families to live at a reasonable standard without working should be abolished.

4. The costs associated with looking for a job and going out to work should be reduced by encouraging the establishment of regional industrial areas, increasing the efficiency of the processes of placing workers and dealing with the unemployed, and improving the transport infrastructure: a. Within the existing framework for encouraging the establishment of plants on the periphery (primarily through the Encouragement of Capital Investments Law) an approach should be devised that focuses on finding employment solutions on a regional basis. The transition to regional industrial centers (which will be larger than those in specific localities) will enable utilization of economies of scale and reduce a township's dependence on a single plant. Subsidizing transportation services to regional industrial centers could enhance the proposal's chances of success; b. The link and exchange of information between the Employment Service and private employment agencies should be tightened; c. A national database of available positions should be set up, and employers should be enabled to post requests for workers directly through it; d. The recommendations of the Tamir Committee regarding establishing experimental placement centers in conjunction with concessionaries from the business sector should be implemented; e. Placement

² Karnit Flug and Nitza (Kaliner) Kasir (2001), "Poverty, Employment, and the Gulf that Lies Between Them," Falk Institute for Economic Research in Israel, *Economic Quarterly*, 4 (Hebrew).

services should be rewarded on the basis of measures of success, as is the practice in other countries; f. When assessing transport investment programs, the possible expansion of employment that could result from investing in the infrastructure in areas that are remote from employment centers should be taken into consideration.

5. The system of updating the minimum wage should be changed, linking it to the median rather than the average wage. This would ensure recipients a reasonable standard of living, but would also guarantee that the minimum wage was less influenced by wage hikes in industries where productivity rises rapidly. This change is needed in view of the rapid rate at which the minimum wage has risen in recent years, and its marked influence on wages in industries which are unskilled-labor-intensive. Similarly, it is recommended that the calculation of wages for the purpose of comparison with the minimum wage should include all components other than reimbursement of expenses or bonuses. The law should be implemented more rigorously, particularly by minimizing the leeway granted when it comes to fining transgressors.

6. Wage restraint should be imposed more strictly in the public sector; this could curb the rise in employment costs in the private sector too. Adhering to a policy of wage restraint in the public sector is important for attaining the deficit target.

7. Direct and time-constrained government intervention should be aimed at foci of unemployment by aiding plants which are temporarily in difficulties.

2. THE POPULATION AND THE WORKING-AGE POPULATION

The working-age population (aged 15 or older) grew by 2.6 percent in 2001, indicating stability in population growth, *inter alia* due to the contraction of immigration: only some 45,000 immigrants came to Israel in 2001, the lowest number since 1990. The stabilization of the growth rate of the working-age population at a lower level than in the past comprises a decline in the growth rate of the Jewish and Christian population and a faster growth rate of the Moslem population. The children of the 'baby-boomers' (born between 1965 and 1980) accounted for about one and a half million persons in 2000, 300,000 of them Arabs. This section of the population, aged between 20 and 35, is now taking its first steps in the labor market, and its composition could have a marked influence on the labor market in the coming decades, mainly because of its relatively large share in the total working-age population. Concurrently, the share of households without a wage-earner and that of children growing up in such households grew, as did the average number of children per household with no wage-earner or only one.² These data reflect the marked effect the transfer payments and subsidies policy is likely to have on the size and composition of Israel's labor market.

² Malka Baron (2001), "Population by Religion, Age, and Birth Rate in 2000," internal memorandum, Bank of Israel Research Department (Hebrew).

Table 2.2
The Labor Market, 1998–2001

	(change over previous year, percent)			
	1998	1999	2000	2001
Population (annual average)	2.4	2.6	2.7	2.3
Working-age population	2.7	2.7	2.9	2.6
Participation rate in civilian labor force ^a	53.4	53.8	54.3	54.4
Civilian labor force	2.6	3.5	3.8	2.8
Total employees	3.2	4.0	4.0	–0.1
Israelis	1.8	3.1	4.0	2.2
Non-Israelis	15.6	10.7	4.3	–16.1
Public-sector employees	6.1	2.8	2.9	4.4
Public-sector labor input	4.5	3.8	1.9	3.2
Business-sector employees	2.3	4.3	4.4	–1.5
Israelis	0.2	3.2	4.4	1.4
Foreign workers	2.9	12.5	16.4	15.6
Palestinians	43.3	8.4	–15.3	–85.6
Share in business sector of foreign and Palestinian workers ^a	15.0	15.9	15.9	13.5
Business-sector labor input	1.2	4.1	5.7	–3.5
Israelis	–1.6	3.9	6.0	–0.9
Foreign workers	2.9	5.6	15.5	15.7
Palestinians	49.6	3.6	–14.3	–85.7
Real wage per employee post ^b	2.2	2.5	6.0	2.5
Business sector	3.0	3.5	6.3	2.5
Public sector	0.4	0.1	5.3	2.7
Minimum wage (real)	5.4	2.2	4.9	7.9
Business-sector unit labor cost	0.5	1.3	–0.5	5.5
Net business-sector domestic product per hour worked ^c	1.3	–2.1	2.8	0.7
Unemployment rate ^a	8.6	8.9	8.8	9.3

^a Actual levels, not rates of change.

^b Excluding Palestinians.

^c At constant prices.

SOURCE: Central Bureau of Statistics, and National Accounts data, including workers in education and health imputed to business sector..

3. THE CIVILIAN LABOR FORCE

The labor force grew by 2.8 percent, faster than the working-age population, and the participation rate rose slightly, to 54.4 percent. The latter reflects an increase in women's participation rate, up from 48.2 percent in 2000 to 48.4 percent in 2001, and a dip in men's participation rate, down from 60.8 percent in 2000 to 60.7 percent in 2001. The slight rise in the participation rate follows two years of accelerated expansion of the civilian labor force, when the participation rate rose by a full percentage point, and may express a return to the long-term growth rate of the civilian labor force. Nevertheless, the moderation of the rate at which the participation rate rose may also reflect the effect of the business cycle, i.e., the recession, which may have caused workers to become discouraged and leave the labor force.

The participation rate rose slightly in 2001, after two years in which it had soared.

Table 2.3
Principal Labor Market Indicators, 1998–2001

					(*000s, annual averages)			
	1998	1999	2000	2001	Change from previous year			
					1998	1999	2000	2001
Working-age population ^a	4,242.8	4,358.4	4,486.6	4,604.5	112.5	115.6	128.2	117.9
Civilian labor force ^a	2,265.8	2,345.1	2,435.0	2,503.5	58.4	79.3	89.9	68.5
Number of unemployed ^a	193.4	208.5	213.8	233.1	26.5	15.1	5.3	19.3
Employees, total ^b	2,342.8	2,435.8	2,533.3	2,531.8	72.3	93.0	97.5	-1.5
Israelis	2,072.6	2,136.7	2,221.3	2,270.1	35.9	64.1	84.6	48.87
Non-Israelis	270.2	299.1	312.0	261.7	36.4	28.9	12.9	-50.3
<i>of which</i> Palestinians	106.6	115.5	98.0	14.1	31.9	8.9	-17.5	-83.9
Foreign workers	163.6	183.6	214.0	247.6	4.5	20.0	30.4	33.6
Public-sector employees ^{b,c}	574.3	590.4	607.4	634.2	33.0	16.1	17.0	26.8
Business-sector employees ^{b,c}	1,768.5	1,845.4	1,925.9	1,897.6	39.3	76.9	80.5	-28.3

^a Labor Force Survey data.

^b National Accounts data, including data from education and health imputed to business sector.

^c Israelis and non-Israelis.

SOURCE: Central Bureau of Statistics, and National Accounts data.

Israel's participation rate is markedly lower than that in the OECD countries, and this is particularly apparent among prime age men (25–54), especially the ones with low education and those who have received solely a religious education. Among women, the low participation rate of Arab women is most notable. The downward trend in men's participation rate is a feature that characterizes most advanced economies, but the rate of decline in Israel in the 1990s was steeper, so that the gap between Israel and the OECD countries is getting wider.³ On the other hand, the participation rate of women in Israel is rising, and more quickly than that of women in the advanced economies, so that the gap is narrowing.

A low participation rate has a markedly negative effect on production, the standard of living, and the extent of poverty and inequality. The absence of employment is a seminal factor in the probability of being poor: the probability that a family with no wage-earner will be below the poverty line is four times greater than that of a family where the head of the household works.⁴ Thus, a low participation rate contributes to massive government intervention (through transfer payments) in tackling the problem of income inequality. This intervention could aggravate the problem of non-participation, as it guarantees the individual a minimum income, thereby reducing the incentive to work or seek employment. In Israel it was found that potential eligibility to receive a benefit significantly reduces the chances of participating in the labor force or working even when the effect of the individual's other characteristics are taken into account.⁵

³ The gap between men's participation rate in Israel and in the advanced economies is notable even after adjusting for the effect of military service.

⁴ Karnit Flug and Nitza (Kaliner) Kasir (2001), *op cit*.

⁵ Adi Brender, Osnat Peled, and Nitza (Kaliner) Kasir (2001), "Government Policy and the Labor-Force Participation Rates of the Prime Age Population: Israel and the OECD Countries in the 1990s," (forthcoming) (Hebrew).

Table 2.4
Labor Force Participation Rates in Israel, 2000

	Men			Women		
	Total		Excl. ultra-orthodox	Total		Ultra-orthodox
	Share in population	Participation rate	Share in population	Share in population	Participation rate	Participation rate
Average participation rate		60.8	63.0		48.2	53.4
Age group						
15–24	25.3	32.4	24.0	23.0	35.6	21.4
25–54 Principal working age, Pre-pension (women, 55–59; men 55–64)	53.6	84.0	54.3	52.2	68.5	51.3
Pension age (women 60+; men, 65+)	9.3	63.9	9.3	4.7	49.9	4.9
Principal working-age group	12.0	14.3	12.4	20.2	9.5	22.4
Years of education						
0–8	9.5	66.6	9.8	11.5	23.5	5.7
9–10	10.9	82.9	11.3	8.8	48.9	7.1
11–12	32.8	87.9	33.6	32.0	66.8	33.4
13–15	23.2	85.2	22.9	24.8	80.9	27.5
16+	23.6	85.7	22.4	23.0	87.6	26.2
Number of children						
None	43.5	79.7	44.5	39.9	73.9	41.9
3 or less	36.7	90.4	37.4	39.7	73.6	41.6
3 or more	19.8	81.8	18.2	20.4	48.1	16.5
Religious education^a	3.4	33.3		4.0	50.8	4.9
In ultra-orthodox household	4.7	43.3				
Non-Jews	19.4	79.8	20.3	18.8	29.7	
In development towns, north	5.8	82.6	5.9	5.7	74.1	6.3
In development towns, south	5.1	82.2	4.9	4.8	68.5	5.5

^a Religious education refers to men whose last place of study is a 'great yeshiva' (religious seminary). Anyone who lives in a household whose head has received religious education is considered part of an ultra-orthodox household.

SOURCE: Based on Central Bureau of Statistics (Labor Force Survey) data.

Table 2.5
Employment Encouragement Policies, OECD Countries, Late 1990s

Policy	Countries
Wage subsidies to employees	US, UK, Spain, Japan
Subsidy/tax credit to employers	US, UK, Denmark, Italy, Austria, Greece
Slowing erosion of benefits (reduction of effective tax rate)	UK, Canada, New Zealand, US, Netherlands, Australia
Making unemployment benefit contingent on vocational training or volunteering	UK, New Zealand, Belgium
Slowing erosion of unemployment benefit and giving rights to persons working for a short time	France, Germany, Israel
Paying unemployment benefit to persons working a few hours	UK, France, Germany, Austria, Greece
Stricter conditions for receiving unemployment benefit	Canada, New Zealand, Netherlands, Belgium, Denmark, Italy, Germany, Finland, Japan, Austria, Israel
Lower tax rates	France, Canada, New Zealand, Netherlands, Belgium, Denmark, Italy, Australia, Germany, Finland, Spain, Japan, Austria, Greece
Shorter working week, subsidies	France, Denmark, Austria, Greece
Retraining programs	Germany, Austria, Japan, Denmark, Greece

SOURCE: Adi Brender, Osnat Peled, and Nitza (Kaliner) Kasir, *Government Policy and Labor Force Participation Rates at the Principal Working Ages; Israel and the OECD countries in the 1990s*, 2001, unpublished discussion paper (Hebrew).

Similarly, it was also found that the existing structure of benefits constitutes an incentive to conceal income,⁶ so that work is unreported, meaning that in many instances social rights are lost, including that to a pension in the future.

In the last decade many advanced economies have introduced extensive policy programs aimed at improving incentives to work and participate in the labor force, and at reducing dependence on welfare programs (Table 2.5). These programs focus on increasing the expected utility to the individual of labor-force participation (assistance in finding work, vocational training that improves wages, changes in taxation) and reducing the incentive to remain outside the labor force (by lowering benefits to welfare recipients who do not work or increasing them for those who do). No real change has yet been made in Israel's welfare and transfer payment policy (except for a cut in the 2002 budget, which stemmed from other considerations). In August 2001 a government committee headed by Yossi Tamir submitted its recommendations on the trial establishment of employment centers which would deal on an individual basis with adapting training and placement programs to recipients of income support, to enable them to find employment (Tamir Committee Report, 2001). Some NIS 20 million were allocated for this purpose in the 2002 budget. At present it is not clear whether the government will in fact adopt and implement the committee's recommendations.

⁶ Noam Zussman and Dimitri Romanov (2001), "The Income Support Allowance and its Effect on the Supply of Labor and the Concealment of Income," Falk Institute for Economic Research in Israel, *Economic Quarterly* 4, (Hebrew)

Table 2.6
Employment and Labor Input, by Industry,^a 1997–2001

	Employment								
	Thousands					Rates of change (percent)			
	1997	1998	1999	2000	2001	1998	1999	2000	2001
Total business sector ^b	1,729.2	1,768.5	1,845.4	1,925.9	1,897.6	2.3	4.3	4.4	-1.5
Construction	257.5	252.5	244.0	235.9	201.9	-1.9	-3.4	-3.3	-14.4
Manufacturing	406.8	409.9	405.0	410.3	392.4	0.8	-1.2	1.3	-4.4
Agriculture	80.5	84.7	87.7	88.5	76.3	5.2	3.5	0.9	-13.7
Commerce and vehicle repairs	266.4	276.4	286.8	303.6	307.7	3.8	3.8	5.9	1.4
Catering services	111.6	121.3	132.0	149.1	133.6	8.7	8.8	13.0	-10.4
Banking, insurance, and finance	76.0	72.8	73.7	73.2	74.6	-4.2	1.2	-0.7	1.9
Business services	213.4	234.1	247.8	286.4	301.4	9.7	5.9	15.6	5.2
Public sector	541.3	574.3	590.4	607.4	634.2	6.1	2.8	2.9	4.4

	Labor input								
	Thousands					Rates of change (percent)			
	1997	1998	1999	2000	2001	1998	1999	2000	2001
Total business sector ^b	71,098.8	71,945	74,897.4	79,150.4	76,374.1	1.2	4.1	5.7	-3.5
Construction	11,499.1	11,127.2	10,550.7	10,278.1	8,896.6	-3.2	-5.2	-2.6	-13.4
Manufacturing	16,944.4	16,982.7	16,953.2	17,310.0	16,165.3	0.2	-0.2	2.1	-6.6
Agriculture	3,602.9	3,776.0	3,964.4	3,962.7	3,501.9	4.8	5.0	0.0	-11.6
Commerce and vehicle repairs	10,962.8	11,251.4	11,738.3	12,445.5	12,383.6	2.6	4.3	6.0	-0.5
Catering services	4,694.8	5,082.1	5,414.3	6,111.7	5,692.9	8.2	6.5	12.9	-6.9
Banking, insurance, and finance	2,918.4	2,889.0	2,801.2	2,754.0	2,784	-1.0	-3.0	-1.7	1.1
Business services	8,523.4	9,265.0	9,823.8	11,635.7	11,925.9	8.7	6.0	18.4	2.5
Public sector	17,258	18,026.2	18,707.1	19,056.0	19,668.2	4.5	3.8	1.9	3.2

Employment and Labor Input by Industry, 2001

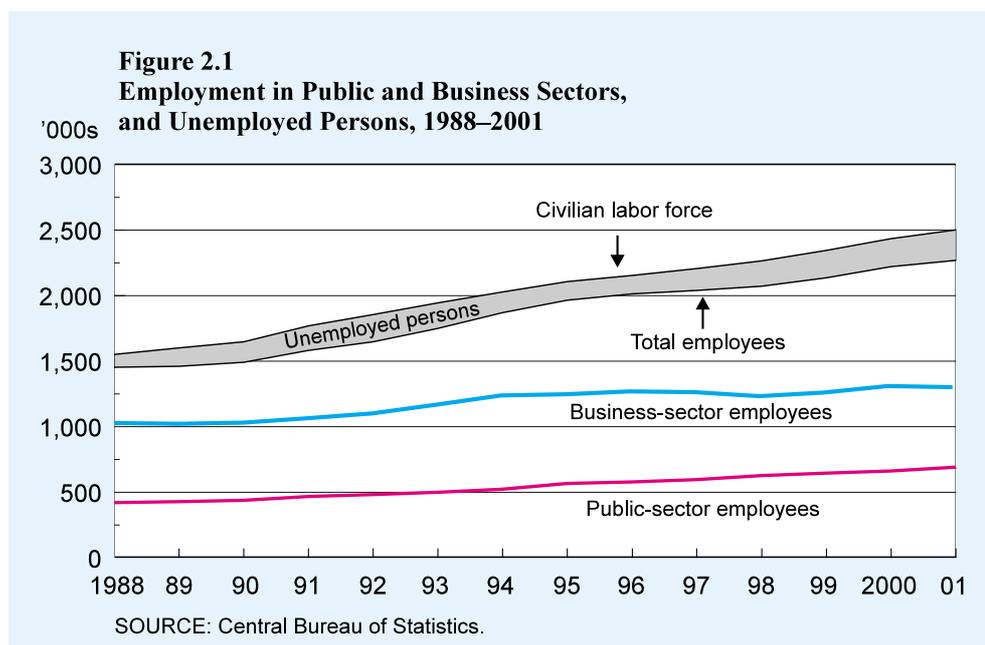
	Employment						Labor input		
	Israelis	Palestin- ians	Foreign workers ^c	Israelis	Palestin- ians	Foreign workers	Israelis	Palestin- ians	Foreign workers
		Thousands	Year-on-year rate of change						
Total business sector ^b	1,642.2	13.9	241.5	1.4	-85.6	15.6	-0.9	-85.7	15.7
Construction	116.7	11.4	73.8	0.3	-80.7	22.0	-2.4	-77.4	21.9
Manufacturing	388.4	1.8	2.2	-1.6	-86.5	0.0	-3.7	-86.6	0.0
Agriculture	43.1	1.3	31.9	-10.0	-86.6	4.2	-8.2	-86.4	4.4
Commerce and vehicle repairs	299.7		8.0	1.4		0.0	-0.5		0.0
Catering services	90.7	1.7	41.2	-3.7	-86.6	-2.4	4.8	-86.7	-2.4
Banking, insurance, and finance	74.6			1.9			1.1		
Business services	261.3	0.5	39.6	7.2	-87.5	2.6	4.1	-86.6	2.6
Public sector	627.9	0.2	6.1	4.4			3.1		

^a Including foreign workers and Palestinians.

^b Figures may not add due to the exclusion of 'miscellaneous.'

^c Foreign workers include both reported and unreported.

SOURCE: Central Bureau of Statistics and National Accounts data, including workers in education and health imputed to business sector.



4. EMPLOYMENT IN THE PRINCIPAL INDUSTRIES

Labor input in general fell by 2.2 percent, and in the business sector by 3.5 percent.

The number of employed persons (including foreign and Palestinian workers) hardly changed in 2001, and labor input in the economy as a whole dipped by 2.2 percent. The slight decline in the number of employed persons reflects a rapid (4.4 percent) rise in employment in the public services and a 1.5 percent fall in employment in the business sector. Because of the decline in the average number of hours worked per employee in the business sector, labor input in it declined more rapidly than employment—by 3.5 percent.

The development of employment in 2001 reflects the effect of three main factors: a. The recession, coming in the wake of the global slump and the security incidents, led to a marked slowing of demand for workers in the business sector. This was also evident in the high-tech industry which had led the rapid economic growth of 2000 (Table 2.6); b. The security incidents, which intensified the effect of the recession on total employment by leading to a marked fall in the labor supply of Palestinians. Nonetheless, since the recession impacted primarily on industries in which Palestinians accounted for a large share of employment, the fall in their number offset part of the influence of the slump on the employment of Israelis and the unemployment rate; c. The marked expansion of employment in the public services served to offset the effect of the slowdown on the employment of Israelis, and was one of the main reasons for the slight decline in the unemployment rate in the first half of 2001.

Figure 2.2
Share of Palestinian and Foreign Workers^a in Total
Business-Sector Employment, 1990–2001



^a Reported and unreported workers, as estimated by the Central Bureau of Statistics, and including workers from health and education imputed to business sector.
 SOURCE: Central Bureau of Statistics.

Palestinian workers

The security incidents, as a result of which Palestinian workers were unable to enter Israel, led to a marked reduction in their number back in 2000:IV. This aggravated the impact of the slump on industries in which these workers accounted for a large proportion of employment, especially construction and tourism. However, as the situation became clearer during the course of 2001, the effect of the labor supply constraint on these industries gradually eased, so that at the end of the year almost all the firms included in the Bank of Israel's Companies Survey reported that the supply of labor did not constitute a serious constraint on the expansion of their activities.

Foreign workers

The number of foreign workers in the business sector grew by 15.6 percent in 2001 (up by 33,000 workers), further to its rapid rise in recent years. This reflects similar increases in the number of reported (15.8 percent, 11,000) and unreported (15.5 percent, 22,000) workers. This contrasts with previous years, when the number of unreported foreign workers rose and that of reported ones fell. The increase in the number of permits issued for foreign workers in 2001 came mainly in response to pressure from employers in industries affected by the reduction in the number of Palestinian workers and seeking a fast, cheap alternative.

The reduction in the labor supply of Palestinian workers intensified the damage to construction and tourism due to the recession.

The marked increase in the number of foreign workers did not fully offset the decline in the number of Palestinian workers, so that the share of non-Israelis in total business-sector employment declined.

Figure 2.3
Relative Share of Foreign
Workers in Civilian Labor
Force,^a 1998



^a For the Netherlands, Norway and the UK the share of foreign workers is calculated from total employment. For Denmark, Germany, and the Netherlands the latest data are for 1997.

The number of foreign workers for Austria and Germany is calculated from the national insurance data of those countries. For Denmark and Norway it is derived from the population census and occupational census respectively. For Italy, Portugal, Spain and Switzerland it is based on residence or work permits. For Japan and the Netherlands it is based on the main Central Bureau of Statistics estimates. For the other countries it is calculated from labor force surveys.

Many of the foreign workers in European countries are from neighboring and EU countries (except for Switzerland, where these workers are not defined as foreign workers). SOURCE: *Trends in International Migration: Continuous Reporting System on Migration: Annual Report, 2000* edition "Sopemi", OECD. In Israel: Central Bureau of Statistics.

The rise in the number of foreign workers in 2001 did not fully offset the fall in the number of Palestinian workers, so that the share of non-Israelis in total business-sector employment dipped slightly, for the first time since 1993, when permits were first issued for foreign workers (Figure 2.2). In 2001 non-Israeli workers accounted for 13.5 percent of business-sector employment, compared with a peak of 15.9 percent in 1999 and 2000. The share of non-Israeli workers in Israel's labor force is one of the highest in the world (Figure 2.3), and is especially high in agriculture, construction, and the services (hotels and catering, and housework). The increase in the share of foreign workers despite the high unemployment rate indicates that it is more worthwhile to employ them (from the employer's point of view), because the labor laws intended to ensure that they have reasonable working conditions and adequate pay (Minimum Wage Law, Hours of Work and Rest Law, etc.)

are not applied, and because the cost to the employer does not reflect the full economic and social price the economy pays for employing foreign workers.⁷

The problems created by the current policy regarding the employment of foreign workers should be viewed against the backdrop of past experience and developments in 2001. In the short term, enlarging the number of permits for foreign workers could ease the impact of the security crisis on industries which are foreign-worker-intensive, most of which were in difficulties before the *intifada*. However, experience proves that increasing the number of foreign workers tends to be irreversible, and it will be difficult to reduce their number once demand declines. Evidence of this is to be found in the growing number of foreign workers who remain in Israel illegally. Furthermore, the knowledge that in a crisis the authorities will issue additional permits to employ foreign workers impels employers to under-invest in technology which could serve as a

⁷ For an in-depth analysis of the economic implications of employing foreign workers, see Chapter 4, Bank of Israel *Annual Report 1997*

substitute for cheap labor, and this feature is particularly evident in construction (see Chapter 1). The extensive employment of foreign workers, as is the case in Israel, has a decisive effect on the labor market—employment of Israelis, participation and unemployment rates, and wages—so that determining a clear-cut policy on the subject must form the basis of any policy plan for the labor market. In delineating such a policy emphasis should be placed on consistently and constantly reducing the number of permits for foreign workers, while setting a clear target for their future number as well as criteria for acceptance. Concurrently, policy should focus on making it equally worthwhile to employ Israelis as foreign workers by enforcing the labor laws—especially the Minimum Wage Law—more rigorously for all workers in Israel, as well as by means of (temporary) incentives to employ Israelis with few years of schooling. Imposing a tax or levy on employers of foreign workers would make it less worthwhile to employ them and oblige employers to bear part of the external cost their employment incurs (including the burden on the infrastructure, especially health and education). In addition, granting a permit to the worker rather than the employer should be considered, as this would narrow the possibility of exploiting foreign workers and make employing them illegally even less worthwhile.⁸

Israeli workers

The number of Israeli workers in Israel rose by 2.2 percent in 2001, more slowly than the working-age population, which grew by 2.6 percent. The increase in the number of Israeli workers reflects the marked expansion—by 4.4 percent—of employment in the public services, and a slight 1.4 percent rise in the number of Israelis employed in the business sector. The rate of increase of the number of Israelis employed in the business sector was not uniform throughout the year (Table 2.1): in 2001:I their number was down slightly from 2000:IV, when it had remained unchanged. In 2001:II their number soared, with a slight fall in the average number of hours worked, while in 2001:III it dipped again, with a steep rise in the share of persons in part-time positions and sharp fall in labor input. In 2001:IV both the number of Israelis employed and labor input plummeted, while the share of persons in full-time positions continued to fall.

The size and composition of Israelis employed in the business sector was clearly influenced by the recession in 2001, albeit with a delay and less intensively than expected. The lag in the response of employment to the economic situation is characteristic of a turning-point in growth, because of the uncertainty surrounding future developments and their extent. The uncertainty was particularly great in 2001 because of the rapid switch to recession after the rapid growth of 2000 (which was not fully expressed in a rise in employment), and in view of the hope that still prevailed at the beginning of the year that the security incidents would end and political calm be

Both the size and the composition of the employment of Israelis in the business sector were influenced by the recession in 2001, albeit with a lag and less intensively than had been expected.

⁸ Granting the permit to the employer makes the foreign worker completely dependent on him, because as soon as the worker leaves him, his presence in Israel is illegal. This dependence motivates foreign workers to agree to sub-standard working conditions. The exception to this is in the area of home-helps, where only one foreign worker is employed at a time.

restored. Uncertainty as to the future state of the economy was expressed *inter alia* in a prominent and protracted decline throughout the year in the average number of hours worked per employee post in the business sector, as well as in a steep rise in the number of persons temporarily absent from work in the first half of the year (Table 2.1). The fall in the number of hours worked and the rise in the number of persons temporarily absent from work were among the factors offsetting the rise in the reported unemployment rate, even contributing to its slight decline in the first half of 2001.⁹

Employment of Israelis declined in many industries during 2001 (Table 2.6). The only industries in which it expanded were business services, where the rate at which it expanded slowed from 15.6 percent in 2000 to 7.2 percent in 2001, banking, financial, and insurance services, where the number of Israelis employed rose slightly after declining in 2000, and construction, where their number grew slightly after a marked and continuous decline in previous years.

The reduction in the number of Israelis employed was particularly apparent in the hotel and catering services industry, which was hard hit by the decline in incoming tourism due to the global slump and the *intifada*, as well as by the fall in internal tourism due to the deep recession and the security situation. The contraction of the employment of Israelis in this industry occurred at the same time as the number of Palestinian workers plummeted, after many years in which the expansion of employment in this industry had served to offset the rise in unemployment.

The 7.2 percent rise in the number of Israelis employed in the business services reflects the rapid expansion of employment in most of the two-digit industries comprising the industry, especially computers (11.4 percent), security guards and cleaning (9.8 percent), R&D (7.4 percent), and other business activities (including legal, accounting, engineering, and architectural services), which rose by 6.5 percent. Altogether, business services contributed 0.5 percentage points to offsetting the rise in the unemployment rate in 2001. Despite the rapid rise in the number of persons employed in business services, there were increasing signs during the year of a moderation in the demand for workers in these industries too, especially computer and R&D services, and this is in fact evident in the growth rate of employment in them since 2000:IV.

According to Labor Force Survey data, the number of Israelis employed in the various manufacturing industries dipped by 0.6 percent in 2001, contributing 0.5 percent to the rise in the unemployment rate. The decline in the number of Israelis employed in manufacturing encompassed most of its component industries, with hardly any difference between the more and less education-intensive ones. The expansion of employment was not confined to education-intensive industries (see Table 1.A.2.10). National Accounts data indicate that labor input in manufacturing fell by 3.7 percent in 2001.

⁹ The increase in the number of persons temporarily absent from work could have a significant impact on the reported number of persons unemployed and the unemployment rate, as someone who has been dismissed but supposedly uses accumulated leave is recorded in the survey as temporarily absent from work, not as unemployed. The same applies to anyone who looks for another job while employed elsewhere. Furthermore, it is possible that at a time of uncertainty regarding the intensity of the recession some employers sent their employees on enforced vacations in order to contend with the drop in demand for their products. When the recession persisted, with the concomitant fall in demand, employers were obliged to reduce their staff and dismiss workers.

The number of persons employed in the public services rose markedly in 2001:I (up by 3.6 percent over 2000:IV), remaining at its high level in the following quarters, too. Altogether, public-sector employment expanded by 4.4 percent in 2001, offsetting 0.4 percentage points of the rise in the employment rate. The trend of rapid expansion in the public services, outstripping the growth of the civilian labor force, was also evident in the past at times of rising unemployment—during the recession that preceded the economic stabilization plan (ESP) of 1985, when unemployment rose after the influx of immigrants, and more recently during the slump of 1996–99. Note that during the recession before the ESP the government intervened directly in the business sector (by granting aid to plants in difficulties and subsidizing employment), so that the contraction of employment in this sector was understated. In the years following the ESP the government refrained from direct intervention in employment (except for subsidizing employment in the early 1990s, following the influx of immigrants). In view of the development of employment in the public services in the last few years there is concern that a rise in the unemployment rate and reduction in growth will impel the government to intervene directly once again in the labor market by increasing employment in the public sector. If expansion of this kind becomes permanent, public-sector expenditure will become less flexible (see Chapter 3).

Despite the foregoing, note that in some public services in which employment expanded most widely, the government works in conjunction with entrepreneurs (Tables 1.A.2.5, 1.A.2.10), and on the basis of the existing data it is not possible to make a distinction between persons employed by the government or via the entrepreneurs (even after imputing parts of education and health to the business sector, as is done by the CBS). Thus, for example, employment in the health, welfare, and social services rose by 5.4 percent, and in education by 4.1 percent. The expansion of employment in public administration began in 2000:IV, and may be connected to some extent with the security incidents and elections for prime minister at the beginning of the year.

The marked expansion of employment in the public services in 2001 offset 0.4 percentage points of the rise in the unemployment rate. The marked expansion of employment in the public services in 2001 offset 0.4 percentage points of the rise in the unemployment rate.

Box 2.2

The Amendment to the Employment of Workers by Employment Subcontractors Law, and its Implications¹

In 2000 employment subcontractors employed 120,000 workers (4.9 percent of the civilian labor force), some 30,000 of them working in the public sector (government ministries and other public bodies) and the rest in the business sector. The employment of workers via subcontractors means that the actual employer has greater flexibility than if he employed workers directly, and this option was originally intended primarily to supplement staff at times of temporary pressure. Employment subcontractors also provide services which are not the

¹ The data in this box are based on a survey of employment subcontractors conducted by the Manpower Planning Authority of the Ministry of Labor and Social Affairs. We would like to thank the Authority for its help and for making the special calculations used here.

Average (Gross, Hourly) Wage of Workers Employed via Subcontractors, and Difference Between their Wages and those of Wage-Earners

	Workers via subcontractors	Wage-earners, wage difference (percent)	
		Age 25 or less	Age 35 or less
Free and technical professions	26.3	20	40
Clerical	18.3	20	30
Agents and service workers	16.3	25	35
Vocationally trained	22.4	-12	0
Untrained	16.3	20	20
General average	18.4	20	40
Average adjusted for occupational structure		15	30

SOURCE: Survey of employment subcontractors undertaken by Ministry of Labor and Social Affairs.

principal concern of the firm, thereby enabling it to concentrate on those spheres of activity in which it has a comparative advantage, in accordance with the adage: “Do what you do best and outsource the rest.”

Alongside aid in recruiting workers, supplying temporary personnel, and providing business and other services, the employment subcontractors have expanded their activities as an intermediary between employers and employees in long-term arrangements too. In these cases the employment of workers via subcontractors constitutes a way of bypassing collective and other agreements that apply to permanent employees at the place of work, thus substantially reducing the financial and organizational cost of employment. In the public sector this is also used to employ more than the permitted number of workers and to sidestep the civil service regulations.

In 2000 some 120,000 workers were employed via subcontractors, constituting 5.4 percent of Israelis employed (this number includes only workers who work for an employer and do the same work as others directly employed by him, and excludes cleaning and security guard workers or workers who provide services via subcontracting projects). The average time of employment via subcontractors in 2000 was 19.5 months, and 60 percent of these workers worked for the same employer for over nine months (see tables below). Some 30 percent of the persons employed via subcontractors worked in the public services (government ministries, local and other authorities), constituting 5 percent of total employment in the public sector. About 35 percent of the persons working for subcontractors were employed in manufacturing (including in government corporations) and about 35 percent were in the services. According to the survey of subcontracting companies conducted by the Manpower Planning Authority of the Ministry of Labor and Social Affairs, the terms of employment of persons employed via subcontractors were inferior to those of persons employed directly. Their wages

Period of Employment via Subcontractors

	(percent)
Up to 9 months	43.2
9–15 months	14.2
15–24 months	12.9
Over 2 years	29.7
Average period of employment (months)	19.5

SOURCE: Survey of employment subcontractors undertaken by Ministry of Labor and Social Affairs.

were appreciably lower and in many cases they were deprived of their legal rights, such as paid vacation and sick pay (Table 1 and Figure 1).

In June 2001 the amendment to the Employment of Workers by Employment Subcontractors Law, aimed at reducing to a minimum the activity of employment subcontractors as intermediaries in long-term employment and preventing discrimination against their workers, went into effect. The amendment contains two main clauses: first, a time limit of nine months is set on the employment of a worker via a subcontractor, after which the worker becomes a full member of the employer's staff. In exceptional cases the Minister of Labor and Social Affairs can authorize the extension of the time limit to 15 months. Second, the terms of employment of workers employed via subcontracting companies must be brought into line with those of the employer's staff. This amendment could make it less worthwhile to employ workers who are not temporary via a subcontracting company, but it stipulates that the equalization of the terms of employment will not apply to workers whose association with the subcontractor is regulated under the terms of a collective arrangement to which an expansionary order (i.e., one which extends the agreement to all employees) applies.

After several months of negotiations between the representatives of the employment subcontractors and the *Histadrut*,² they reached an agreement in

Distribution of Period of Employment via Subcontractors

	(percent)	
	Up to 9 months	Over 9 months
Private sector	44.4	55.6
Public sector	27.3	72.7
Via large subcontractor	43.0	57.0
Via small subcontractor	43.0	57.0
Men	50.5	49.5
Women	39.4	60.6

SOURCE: Survey of employment subcontractors undertaken by Ministry of Labor and Social Affairs.

² The Arrangements Law (not yet ratified) also determines that the equalization of the terms shall not apply to computer workers, as in this case the wage paid by subcontractors is generally higher than that paid by the employer. Most of the workers who are graduates and are employed via subcontractors (about 3 percent of total persons employed via subcontractors) are computer workers.

December 2001.³ While this does not depart from the provisions of the law regarding the time limit, it is of great significance for the terms of employment of the workers while they are employed via the subcontractor (for the first 9–15 months of their employment). From the workers' standpoint the terms of employment determined in the agreement are better in most cases than their current ones, but they are generally worse than those provided by the employer. The aforesaid collective agreement is not yet in effect, as the expansionary order has not yet been applied.

After the amendment was approved, most employers employing workers via subcontractors began to streamline their activities, and this led to the reduction of these workers by 20,000. Some of these were taken onto the employer's staff, while others were dismissed. According to the subcontractors, the number of persons employed by them is expected to continue falling at a rapid rate until February–March 2002 (nine months after the amendment goes into effect), and to stand at 50,000 workers at the end of the period.

The significance of the amendment is, as stated, a marked increase in wage costs from the standpoint of the employer, and a decline in the flexibility of employment in the long run. It is reasonable to assume that as the time limit approaches, in March 2002, some of the workers whose new wage costs will be too high for employers will be dismissed, so that the amendment could contribute to a rise in the unemployment rate at a time of recession, when the unemployment rate is anyway high. On the other hand, the amendment hardly affects the flexibility of part-time employment, as the possibility of employing workers via subcontractors for short periods is still open, and hence it would appear that employment will be affected only with regard to the equalization of terms. In addition, if it is implemented and enforced, the amendment could limit discrimination against workers employed via subcontractors, improving their standing in the labor market, and according them important social rights.

³ This agreement was preceded by an agreement between the subcontractors and the *Histadrut Leumit*, signed in July 2001. The *Histadrut* opposed it, claiming that the *Histadrut Leumit* was not a representative body.

5. UNEMPLOYMENT

Despite the recession, the unemployment rate dipped slightly in the first half of 2001, but soared from the beginning of 2001:III. As a result, the mean unemployment rate (8.8 percent compared with 9.3 percent in 2000) does not fully reflect the impact of the recession on the labor market. The number of persons unemployed fell in 2001:I—mainly due to the marked rise in the number employed in the public services—began to rise gradually in 2001:II, and accelerated in 2001:III, when it went up by 10.1 percent.

The unemployment rate responded with a lag to the recession, rising steeply only in the second half of 2001.

This delayed response by the unemployment rate to the economic situation is characteristic of the start of a recession.

The rise in the unemployment rate in 2001:III was accompanied by a steep increase in the number of newly unemployed persons—those who have been seeking work for less than two months—apparently indicating that thousands of workers were dismissed.

Table 2.7
Contribution to Change in Unemployment Rate,^a 1998–2001

	(change from previous year, percentage points)			
	1998	1999	2000	2001
Total	1.0	0.4	−0.1	0.5
Business sector	1.7	0.2	−0.4	1.0
High-skill industries ^b	−0.2	0.3	−1.0	−0.1
<i>of which</i> Nontradables	0.1	0.5	0.0	−0.2
Manufacturing	0.0	0.0	−0.4	0.2
Computers	−0.3	−0.2	−0.6	−0.2
Unskilled-labor-intensive industries ^c	1.3	0.4	0.2	0.7
<i>of which</i> Manufacturing	0.7	0.0	0.3	0.1
Textile and clothing	0.2	−0.1	0.2	0.1
Construction	0.9	0.7	0.3	0.1
Catering and hotel services	−0.2	−0.3	−0.3	0.3
Other industries (not classified) ^d	0.5	−0.2	0.1	0.4
<i>of which</i> Manufacturing	0.2	0.4	0.4	0.2
Public sector	−0.7	0.2	0.3	−0.4

^a The contribution to the rise in unemployment was calculated as the difference between the number of Israelis who would be employed if employment had expanded in line with the growth of the civilian labor force and its actual expansion (for by-industry breakdown, see Table 1.A.2.10).

^b High-skill industries include some manufacturing, computer services, banking, insurance, financial institutions, and other business activities. This classification differs from that in the section on manufacturing in Chapter 1.

^c Unskilled-labor-intensive industries include some manufacturing, construction, commerce and repairs, and catering and hotel services.

^d Other industries (not classified) include agriculture, water and electricity, transport, storage and communications, equipment rentals, employment agencies, security and cleaning, entertainment and other personal services.

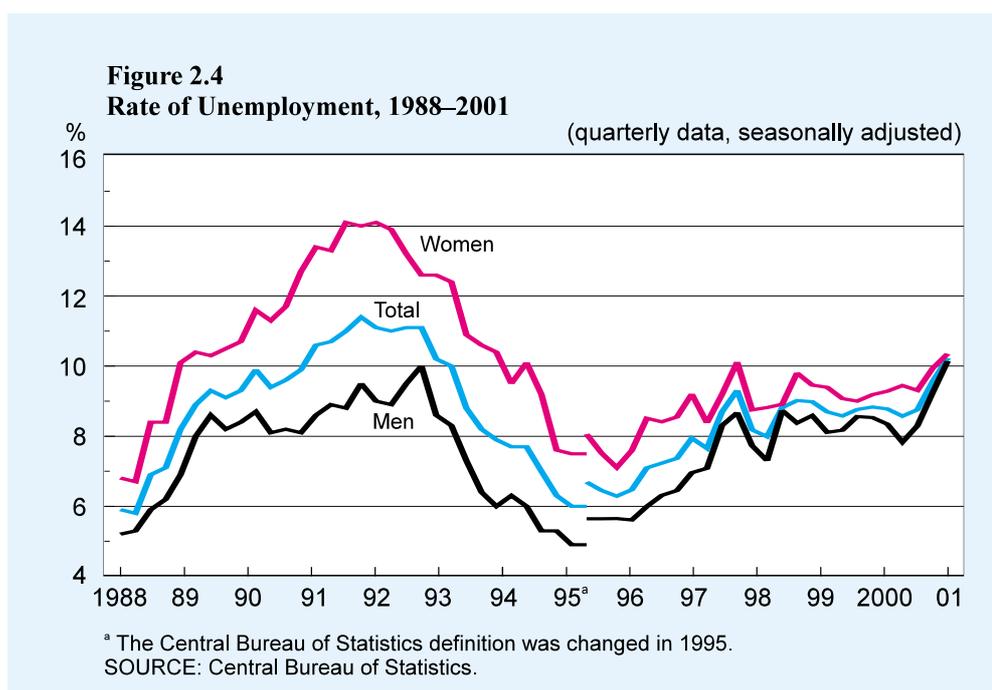
SOURCE: Based on Labor Force Surveys of the Central Bureau of Statistics.

Concurrently, the number of persons unemployed for more than six months rose, even though their share in total unemployment fell. Employment Service data show that in the second half of 2001 the rate of increase of claims for unemployment benefit accelerated, both those submitted for the first time and those submitted repeatedly—and this is consistent with the increase in the unemployment rate.

The unemployment rates for both men and women soared in 2001. The increase in the men's unemployment rate expresses its marked decline in the first half of the year, alongside the rise in the share of men employed in part-time positions and those temporarily absent from work, as well as the steep increase that began in 2001:II. The women's unemployment rate rose in 2001:I, continuing the trend evident in the second half of 2000, and continued rising in the second half of 2001, after declining in 2001:II.

Because of these developments, the gap between men's and women's unemployment rates widened at the beginning of the year, possibly reflecting a more rapid response on the part of women's employment to the level of economic activity. This gap narrowed as the men's unemployment rate rose in 2001:II, so that the average difference between men's and women's unemployment rates remained at the same level as in 2000.

The rise in the unemployment rate in 2001 was particularly notable among persons with 13–15 years of schooling, while that of persons with few years of schooling (up to



8 years) declined (Table 2.8). The marked rise in the unemployment rate of persons with post-secondary education came after its steep fall in 2000, and alongside the increase in their relative share in the labor force. The decline in the unemployment rate of persons with few years of education expresses mainly the ongoing reduction in their participation rate, together with the fall of their share in the working-age population. These developments served to narrow the gap between the unemployment rates of highly-educated persons and those with only a few years of schooling.

The high and persistent unemployment rates have economic and social implications in both the long and the short term. High unemployment rates could expand the hard core of unemployed persons whose chances of finding work in the future are low. Remaining jobless for a long term leads to a loss of part of the unemployed person's human capital, reduces his ability to utilize his previous work experience as evidence of his ability, harms his chances of finding employment in the future, and increases the natural unemployment rate. High unemployment rates over time also cause workers

Table 2.8
Unemployment Rate, by Years of Education, 1997–2001

	(percent)				
	1997	1998	1999	2000	2001
Total	7.5	8.6	8.9	8.8	9.3
Years of education					
0–8	10.0	13.0	13.7	13.2	12.8
9–12	9.5	10.5	11.0	11.5	12.2
13–15	6.5	7.3	7.8	6.9	8.1
16+	4.1	4.2	4.4	4.5	4.5

SOURCE: Based on Labor Force Surveys of the Central Bureau of Statistics.

who have been seeking work for a long time to become discouraged and leave the labor force. The marked decline in the participation rates of persons with few years of schooling (up to ten years) may attest to this effect, known as the ‘discouraged worker.’ Its persistence could indicate that persons with few years of schooling are being pushed out of the labor force and employment, so that they will remain unemployed even after the economy picks up and returns to a sustainable growth path. The widening of the circle of unemployment indicates the need for policy measures that will contribute to the reduction of the natural unemployment rate in the long term, and ease the effect of the recession on employment in the short term. In the short term efficiency should be increased and vocational training schemes expanded, bringing them into line with the requirements of potential employers. In order to improve coordination between vocational training and employers’ needs, greater involvement of the latter is required in planning such schemes (through subsidizing on-the-job training), and incentives should be given in accordance with the success of subsequent placements. Vocational training schemes should not become a way of artificially reducing measured unemployment.

The Manpower Planning Authority issued several brochures during the year describing the characteristics of persons attending the vocational training schemes of the Ministry of Labor and Social Welfare, and the employment achievements of their graduates. The findings indicate that the number of persons attending these courses, and direct expenditure on them, has risen notably. Research based on follow-up studies of graduates of vocational training courses indicated that many of them have considerable difficulties in finding work; six months after completing the course about half of the graduates were not working, and of those who were only half were employed in their profession, and their average wage was lower than it had been previously.¹⁰ In the absence of a control group, it is impossible to gauge how successful participants in the course would have been otherwise. Nonetheless, the findings of the various studies indicate that there is room for improvement as regards both the policy of the Employment Service in classifying candidates for training, in its follow-up of graduates, and

¹⁰ Avner Ahitov, Yonatan Ayal, and Lee Cohen (2001), “An Analysis of Changes in the Employment and Wage of Unemployed Persons in Israel After Vocational Training,” Ministry of Labor and Social Affairs, Manpower Planning Authority, *Discussion Paper* no. 7.01, August (Hebrew).

in providing training that will significantly increase graduates' potential for employment and earning (for other policy measures designed to reduce unemployment and increase employment, see Box 2.1).

6. WAGES¹¹

The average nominal wage per employee post, excluding Palestinian workers, rose by 3.6 percent in 2001.¹² This reflects an increase of 3.8 percent in the public services and of 3.6 percent in the business sector. Real wages rose by 2.7 percent in the public services and by 2.5 percent in the business sector (Table 2.9). During the year the rate at which wages rose slowed, partly expressing their adjustment to the recession.

Table 2.9
Change in Real Wage per Employee Post, 1998–2001

	1998	1999	2000	(percent, at constant prices)		
				2001 ^a	Jan–June 2001 ^b	July–Dec 2001 ^c
Total						
Including Palestinians	2.2	2.6	6.2	3.1	5.8	0.4
Excluding Palestinians	2.2	2.5	6.0	2.5	5.1	–0.1
Public sector	0.4	0.1	5.3	2.7	5.1	0.2
Business sector						
Including Palestinians	3.0	3.6	6.6	3.3	6.2	0.5
Excluding Palestinians	3.0	3.5	6.3	2.5	5.1	–0.1
Agriculture						
Including Palestinians	3.1	2.7	5.3	8.5	10.2	6.8
Excluding Palestinians	3.2	3.0	4.1	6.0	6.6	5.5
Manufacturing	5.5	5.2	4.3	2.9	4.4	1.4
Electricity and water	2.8	2.3	7.6	2.6	3.9	1.4
Construction						
Including Palestinians	2.3	3.9	6.3	4.1	6.3	2.0
Excluding Palestinians	2.7	3.7	5.0	–0.4	1.2	–1.8
Commerce and repairs	2.7	–0.4	6.1	1.6	5.2	–1.7
Catering and hotel services	0.6	1.2	4.0	0.4	0.9	–0.1
Transport, storage and communications	1.4	0.6	1.5	0.6	1.5	–0.4
Financial services	–2.6	3.9	12.0	1.9	5.3	–1.8
Business services	4.2	10.3	14.2	4.1	9.7	–1.0

^a Unadjusted data. Rate of change calculated as difference between period and equivalent period in previous year.

^b Unadjusted data for January–June 2001. Rate of change calculated as difference between period and equivalent period in previous year.

^c Unadjusted data for July–December 2001. Rate of change calculated as difference between period and equivalent period in previous year.

SOURCE: Central Bureau of Statistics.

¹¹ The wage per employee post is calculated as total wage payments *divided by* the total number of employee posts (not adjusted according to full- or part-time positions). Some of the changes in the wage per employee post are therefore technical, arising from changes in the number of hours worked (switching between full- and part-time employment), the number of days worked per employee, the mobility of workers between places of employment, the composition of their human capital, etc. Moreover, due to the problem in recording wages paid to foreign and Palestinian workers, together with their high share in the total number of employees, wage data are biased. This bias is particularly problematic in 2001 because of the substantial changes in the composition of employee posts due to the limited entry of Palestinians into Israel.

¹² The average wage per employee post, including Palestinian workers, rose by 4.2 percent (3.1 percent in real terms).

Average hours worked per employee post fell by 2.9 percent in the business sector, and labor productivity (net domestic business-sector product per hour worked, at constant prices) increased by 0.7 percent. Unit labor cost was up by an unprecedented 5.5 percent, after declining slightly in 2000 and rising in 1998–99, which was also a period of recession. Lavi and Sussman¹³ found that in the long run real wages are determined on the basis of productivity, so that unit labor cost is expected to remain without significant change. Deviation from the path of long-term equilibrium depends on several factors which weaken the response of wages to the development of productivity, and could serve to raise the natural unemployment rate.

There are several accepted explanations for the rise in real wages even in a recession, although they do not seem to be sufficient to explain the full extent of the wage hike in 2001. First, the wage agreements currently in effect were signed before the full extent of the slowdown became apparent, and therefore reflect expectations that the economic situation would improve. This claim is reinforced by the moderation of the rate at which wages rose and the deterioration in the employment situation during the year. Second, it is reasonable to assume that some of the nominal wage agreements signed by employers and employees reflected expectations of a higher inflation rate than was actually the case.¹⁴ The effect of the difference between the inflation expectations that underlay the wage agreements and the actual rate of increase of the CPI was relatively small in 2001, as it is reasonable to assume that the wage agreements signed that year remedied the forecasting error of previous years, when they made a marked contribution to the rise in real wages.

The change in the by-industry composition of employment in the business sector contributed more to the wage hike in 2001 than in previous years: in the entire business sector the change in by-industry composition contributed 1.3 percentage points to the wage hike, in manufacturing it contributed 1.1 percentage points (out of a 2.9 percent wage increase), and in business services its contribution was the greatest—2.1 percentage points of a 4.1 percent wage rise. These are underestimates of the full effect of the change in the composition of employment on real wages, as they do not include the influence of shifts in this composition within industries as a result of dismissals of low-paid workers, the slower rate of employment of new workers at an initial wage level, or the increased demand for workers in occupations where wages are relatively high. Note, however, that a large part of the change in by-industry composition has already been expressed in a rise in productivity, so that it cannot explain the increase in unit labor cost.

The ongoing rise in the real wage in the business sector, persisting during the recession, indicates that even though the wage-determination mechanism has become more flexible in the last decade, it still contains rigidities which retard and weaken the

The rate at which wages rose moderated during the year, in response to the recession.

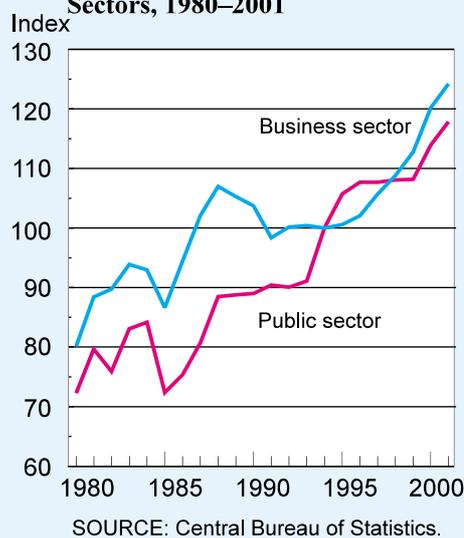
The change in the composition of employment contributed more to the wage hike in 2001 than in previous years.

¹³ Yaakov Lavi and Nathan Sussman (2001), “The Determination of Real Wages in the Long Run and their Changes in the Short Run: Evidence from Israel, 1968–98,” Bank of Israel Research Department, *Discussion Paper* no. 2001.04, February (Hebrew).

¹⁴ Lavi and Sussman (*op cit.*) showed that in recent years (1999–2000) the effect of unexpected inflation on real wages has weakened, and this could explain about 25 percent of their rise, compared with 40 percent in previous years.

response of wages to the economic situation. Artstein¹⁵ found that most of the increase in labor-market flexibility derives from the rise in flexibility of employment in the wake of the change in its by-industry composition (increase in the share of industries in which wages are set competitively), parallel to the rapid economic growth and marked increase in the supply of labor due to the influx of immigrants and permits granted for foreign workers. However, Israel's wage-determination mechanism does not fully express the influence of the structural and institutional changes which operated to make it more flexible: greater competitiveness in Israel's goods markets, declining share of the *Histadrut* (whose influence was offset by the increased share of the industry and professional unions),¹⁶ larger share of individual contracts vis-à-vis a decline in that of collective agreements and the COLA agreement, and a rise in the share of persons employed in flexible frameworks (e.g., via employment subcontractors). Studies undertaken in other countries have shown that steps taken to weaken institutional constraints in labor markets moderate the rate of wage increases after a relatively long time, so that the steps mentioned below can be expected to have results in the future in establishing a closer connection between the demand for labor and changes in wages. Lavi and Sussman¹⁷ showed that in Israel, as in other countries, the unemployment insurance system impacts on wages, and that unemployment benefits and the proportion of recipients in total unemployed persons has an increasing effect on real wages,

Figure 2.5
Index of Real Wage per Employee
Post in the Business and Public
Sectors, 1980–2001



The influence of the increase in the minimum wage on the average wage was relatively small, because of the low level of compliance with the law. Nonetheless, the linkage of the minimum wage to the average wage could cause wage hikes in high-tech to spill over into other industries, leading to the dismissal of low-wage workers.

completely offsetting the effect of the structural and institutional changes that operate to make the wage-determination mechanism more flexible. On the other hand, the relatively modest level of unemployment benefits in Israel (see Chapter 4, Bank of Israel *Annual Report* 1999) is one of the explanations for the considerable basic wage flexibility relative to other countries.

The minimum wage was raised by 10 percent in April 2001, so that in real terms it was up by 7.9 percent over 2000. Persons earning the minimum wage constitute 15 percent of total employed persons, but because of the low rate of compliance with the Minimum Wage Law the direct effect of increasing the minimum wage was relatively small.

¹⁵ Yael Artstein, "Flexibility in Israel's Labor Market" (2001) in Avi Ben-Bassat (ed.), *op.cit.*

¹⁶ Yinon Cohen et al. (2001), "The Share of Workers in Labor Unions and the Coverage of Collective Agreements: the Situation in 2000," Ministry of Labor and Social Affairs, Manpower Planning Authority, *Discussion Paper* no. 9.01, August (Hebrew).

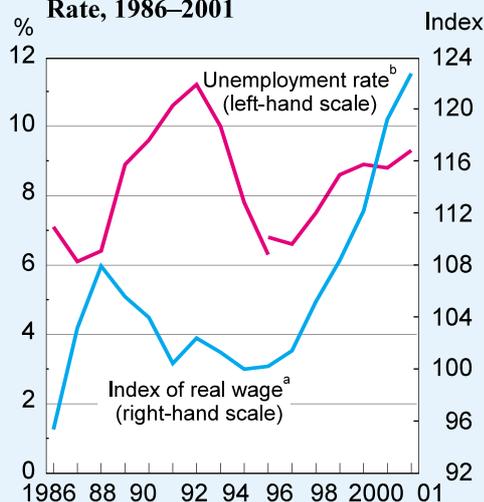
¹⁷ Lavi and Sussman, *op. cit.*

Nevertheless, raising the minimum wage could set off a series of wage demands at low wage levels, including from persons earning more than the minimum wage, because of Israel's wage-linkage system and the desire to maintain certain wage differentials between workers at different grades. Linking the minimum wage to the average wage means that the former goes up whenever anything causes the latter to rise, even if this is due to a specific occupation or industry (such as the rise in the wages of high-tech workers in recent years due to the excess demand for their labor). The effect of the wage increases in industries where productivity is high on wages in other industries is particularly problematic in view of the large share of persons earning the minimum wage in industries where productivity rises slowly. Furthermore, because of the linkage system the rise in the minimum wage could gather momentum just as the share of low wage-earners in total employment is falling (due to dismissals and/or the contraction of unskilled-labor-intensive industries), as the decline in their proportion serves to increase the average wage. In such cases the linkage of the minimum wage could impact on that section of the population that earns a low wage and has little bargaining power—those whom it was intended to protect—by leading to increased wage rigidity and ultimately to additional dismissals of low-wage workers.

The increase in the business-sector wages was led by business services, where wages rose by 4.1 percent. This continued the rapid increase in wages in this industry in the last few years alongside the rise in productivity and expansion of employment in it. A large part of the wage hike in the industry stemmed from the dramatic change in the composition of its employment—a rise in the share of computer services and other business services (legal, accounting, engineering, and architectural services), in which the average wage is relatively high, compared with a fall in the share of the two-digit industries in which it is relatively low (e.g., security guards and cleaning). Despite the sharp rise in real wages in this industry, some moderation of the rate of wage increases is evident during the year compared with previous years, primarily due to the crisis in the high-tech industry which caused the demand for workers to fall.¹⁸

¹⁸ The decline in the price of shares in start-ups traded abroad may also have led to the reported decline in wages because of the slower rate at which share options granted to employees were exercised, and the fall in their price.

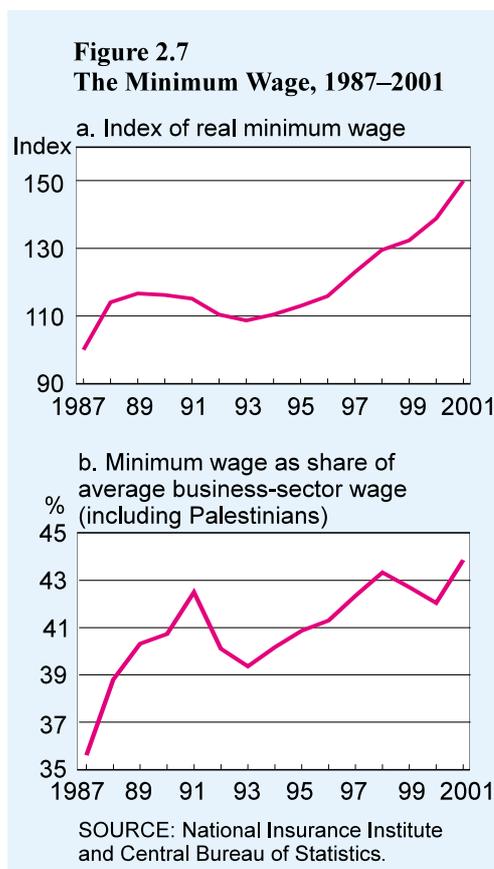
Figure 2.6
Indices of Real Wage per Employee Post in Business Sector (excluding Palestinians) and Unemployment Rate, 1986–2001



^a Index: 100 = 1994

^b In 1995 the CBS definitions were changed.

SOURCE: Central Bureau of Statistics.



The moderation of the rate at which wages rose compared with previous years is also evident in the financial services, hotel and catering services, commerce and repairs, and electricity and water. Although wages rose in all of them in 2001, this was at a lower rate than in the past. In construction the real wage declined slightly (excluding Palestinian workers) after increasing notably in previous years.

In spite of the economic situation, which called for wage restraint, 2001 was a year of long struggles and strikes in the public services. The 2.7 percent rise in real wages in the public services (3.8 percent in nominal terms) reflects *inter alia* the effect of the wage agreement signed at the beginning of the year with the large associations of professional employees (including graduates in the social sciences and humanities, engineers, technicians, etc. but not teachers, physicians, nurses, academics, and several other groups).

Under that agreement, employees received a 3.6 percent wage increment starting in January 2001 as well as a one-off payment of NIS 1,250. The wage hike in the public services also expresses the effect of the rise in the minimum wage in April 2001, estimated at 0.5 percent, as well as wage drift, estimated at 2–3 percent. Since the agreement did not fully meet all the *Histadrut's* wage demands for 2001, employees undertook to refrain from taking industrial action only until July 2001, while the employers agreed to conduct negotiations on the *Histadrut's* remaining demands. These were held during 2001, concluding at the beginning of 2002 in an additional 2.4 percent wage hike.

During 2001 the wages of senior officials in the public sector were adjusted by 10.2 percent. in step with the rise in the average wage, and the Minister of Finance's proposal to link them to the CPI as of February 2001 was accepted. The wage tables of the physicians, pharmacists, and nurses were also updated during the year, and a wage agreement was reached with the teachers and with several small unions.

The current system, by which public-services wages are determined on the basis of collective wage agreements and complementary wage drift (by grades, seniority, and special increments), is problematic at a time of price stability, as every nominal increment is immediately translated into a significant real one. The existing wage mechanisms, especially wage drift, resolved the problem of the unexpected erosion of wages at

times of rapid inflation, but now create problems when it comes to managing wages and personnel, because they grant real wage increments even without a wage agreement, and preclude increments other than through promotion to a higher grade, which could create labor strife. In addition, the need to maintain a hierarchy of grades among employees and the attainment of the highest possible grade in their occupation by many employees prevents the faster promotion of employees with seniority. This could also cause labor strife, as it is these employees who generally conduct labor negotiations.

Box 2.3

Promotion by Grade: The Cost to the Employer and Worthwhileness to the Employee

During the period of rapid inflation the changes in the wage agreements (basic wage and COLA increments) did not maintain real wages, so that the wage drift mechanisms expanded and developed. The main ones were faster promotion through grades and individual wage increments (car allowance, overtime, etc.). Some of these mechanisms, which helped to maintain real wages, were accorded differentially to employees, and some were anchored in collective agreements. Accelerated promotion obscures the distinction between grades accorded because of effort, the acquisition of additional skills, or advancement to a higher position, on the one hand, and semi-automatic promotion of large numbers of employees instead of a wage policy, on the other. This erodes the wages of those employees who are not promoted to a higher grade. Finally, as a result of the widespread promotion, the top echelon of grades is widened, possibly giving rise to administrative difficulties.

The financial value of promotion to a higher grade is relatively large, and can be estimated on average for the 1980s and first half of the 1990s as between *13 and 15 percent* a year by scale, provided all employees are promoted by one grade, *re-grading value*. Some 40–50 percent of permanent employees were promoted by grade on a yearly basis, so that their average annual wage increment was 6–7 percent.¹

With the slowing of the inflation rate, the erosion of the real wage also moderated, so that it was not so essential to compensate for wage erosion via agreements, though the institutionalized compensatory mechanisms described above continued to function. Whereas the high rate of promotions declined in the second half of the 1990s relative to the past, the re-grading value remained 14 percent. At the end of the 1990s the promotion rate of permanent staff was still 30–33 percent annually, contributing 4.3 percent a year to the wages of the permanent individual employed in the public service.²

¹ This figure is not identical with the contribution of promotion to the change in the average public-sector wage, which is estimated on the basis of the wage increment of all the employees.

² Zvi Sussman and Dan Zakai (2000), "From Promoting the Worthy to Promoting All: The Public Sector in Israel, 1975–99," Bank of Israel Research Department, *Discussion Paper* no. 11.00, November.

It is difficult to distinguish the justified promotion rate of an employee from the unjustified rate that constituted wage drift. We tried to estimate these rates in the public services by defining *undistorted promotion* as that which occurs only when *a vacancy occurs at a higher grade*, or when a position is created because the service expands. In undistorted promotion, as defined here, there is *no addition* to the average wage from the employer's standpoint, while the promoted individual benefits from an increment to his wage. The rate of undistorted promotion is dictated by several parameters: the pyramid of grades—the slope, number of grades, retirement rate at various grades, entry rate at various grades, and general rate of expansion of public-sector employment. In estimating the rate of expansion of the undistorted rate of promotion we assume that the relative structure (hierarchy) of the pyramid of grades remains unchanged during the period examined, and if the number of employees in the grade or sector examined rises, we assume that it is proportional at the various grades. In accordance with the description above, retirement of employees at the apex can create a chain of undistorted promotions, because the posts are filled internally by employees from lower grades.

Furthermore, the total promotion rate can be broken down into that which is undistorted and does not affect the average labor cost to the employer, and that which is excess or grade drift, increasing the costs to the employer and leading to change which is not necessarily functional in the hierarchical structure of the public service.

On the basis of a simulation of the uniform and administrative pay scales, we estimated the undistorted promotion rate between 1992 and 1999 as 21–22 percent a year, whereas the actual rate in this period was about 40 percent a year. According to the re-grading value of 14 percent of the persons in these grades the excess promotion of permanent employees in this period can be estimated at about 2.5 percent a year—some of them, as stated, in the framework of the collective agreement for 1993–96.³

³ In 1984–92 actual promotion was 49 percent a year, and excess promotion was higher—representing 4.5 percent of the annual wage.