

Chapter 5

The Labor Market

- The demand for labor continued to expand during the first half of the year, and was reflected by an increase in the number of employee posts in the business sector, a moderate growth in the employment rate, a rise in the nominal wage, which had eroded to some extent due to the increase in consumer prices, and by a decrease in the unemployment rate to about 5.5 percent in the second quarter.
- The growth in the demand for labor in the business sector slowed in the second half of the year, the increase in the number of employee posts in the sector ceased, and the unemployment rate ranged around the level of 5.5 percent. However, employment continued to expand to a modest extent and the real wage increased due to the low rate of inflation and the persistent rise in the nominal wage.
- Signs of increased efficiency in the labor market during the last five years, including a decrease in the rate of transition from employment to non-employment and reduced friction in the labor market, are suggestive of a decrease in the economy's "natural unemployment rate" (Box 5.1).
- Signs of rapid growth in the rate of employment of ultra-Orthodox men are apparent, especially in the business sector industries. The employment rate increased from 39 percent in the years 2008–09 to about 46 percent in 2011. However, the employment rate among ultra-Orthodox is still 15 percentage points lower than the employment target which the government has set for 2020 (Box 5.2).
- The growth in the employment of non-Israelis in the economy continued. Authorized and unauthorized employment of Palestinians increased, as did the entry of (work-seeking) infiltrators via the Egyptian border. This resulted inter alia from an inconsistent government policy regarding efforts at ending the employment of foreign workers in the economy.
- The real wage in the business sector has not risen during recent years because of increased employment in industries that are not human-capital intensive—which was filled by an elastic supply of labor on the part of unskilled Israeli and non-Israeli workers—and due to wage erosion which was caused by the soaring consumer prices relative to the business sector GDP deflator. However, the increase in the real wage adjusted by the GDP deflator continued to rise due to the continually growing demand for labor.

- Although the government is taking policy measures—such as a rise in the minimum wage, an earned income tax credit (negative income tax), and more stringent enforcement of workers’ rights—in order to expand the employment of worker with low-income earning ability and to increase their welfare, it is nevertheless continuing to employ workers by means of outsourcing. In the absence of strict supervision, this could harm the welfare of those workers.
- Expenditure on private childcare facilities for infants has a decidedly adverse effect on the employment of mothers. Such expenditure is considerably higher in Israel than in other OECD countries. This has held back an increase in the employment rate of mothers of infants, which had been a notable development among all women in the past decade. Implementation of the free education law for children aged 3–4 with effect from the 2012/2013 school year will reduce this expenditure burden. An additional increase in the subsidization of childcare facilities will help to speed up the increase in the employment rate of women.

1. MAIN DEVELOPMENTS

The rapid growth in business sector demand continued in the first half of the year, yet this demand slackened in the second half as expansion in that sector slowed. The concurrent slow growth in the supply of labor reflected a modest rise in men’s labor force participation rate and an increase in the number of non-Israeli workers. The rapid growth in demand for labor led to an increase in the employment rate of Israelis to 54.2 percent and to a rise in the nominal wage and the wage deflated by GDP prices, which increased to a moderate extent. From the workers’ aspect however, the rise in the nominal wage was largely eroded by higher consumer prices and as in previous years, the real wage rose to a negligible extent. The growth in employment concurrent with a minor increase in the participation rate led to a fall in the unemployment rate among Israelis to about 5.5 percent in the second quarter of the year. This is one of the lowest ever rates in Israel for the past three decades.

Signs of a downturn in business sector demand for labor became apparent in the second half of the year concurrent with a slower GDP growth rate, a decrease in exports and a worsening of the sovereign debt crisis in Europe. The downturn in demand was reflected in the labor market by an end to the increase in the employment rate and job vacancies, a slower rate of increase in the number of employee posts in the economy and an end to such an increase in the business sector from July, and by a static level of

unemployment around 5.5 percent (Table 5.1, Figure 5.4). These developments would appear to suggest that the economy reached the peak of the business cycle in the middle of the year. However, the continued increase in the number of business sector employees (especially unskilled employees) and in the nominal wage in the second half of the year indicates that the downturn is not severe. The real wage also rose in the second half due to the slower pace of price increases concurrent with the continued rise in the nominal wage.

Table 5.1
Main Labor Market Variables, 2010–11

	(percent)							
	2010				2011			
	I	II	III	IV	I	II	III	IV
Participation rate ^a	56.7	57.2	57.7	57.7	57.5	57.5	57.4	57.4
Employment rate ^a	52.7	53.6	53.8	54.0	54.0	54.3	54.1	54.2
Unemployment rate ^a	6.9	6.6	6.6	6.4	6.0	5.6	5.6	5.4
Increase in total number of employed ^b	0.43	1.68	1.27	0.65	0.51	0.88	0.37	0.51
Increase in number of wage earners ^b	0.45	2.53	1.18	0.71	0.49	0.94	0.19	0.05
Increase in number of employee posts ^b	1.55	1.07	0.73	1.25	1.05	0.78	0.64	0.24

^a Actual levels.

^b Percent change from previous quarter.

^c Seasonally adjusted.

SOURCE: Central Bureau of Statistics.

These factors, and in particular, the unemployment rate, which is very low in comparison with the rate prevailing in the Israeli economy during recent decades—although not compared with such economies as Germany, Australia and Canada—lead to the question of whether the Israeli economy was in an environment of full employment in the middle of the year. Full employment in the labor market is a theoretical situation in which those wishing to work are employed or are between jobs, implying a situation of frictional unemployment. A rapid growth in demand in a situation of full employment when the supply of labor is inelastic could lead to a continual rise in wages, which in turn could lead to inflationary pressures.¹

This chapter presents evidence of supply elasticity with respect to workers lacking higher education, which derives from the increased employment of ultra-Orthodox men (Box 5.2), the authorized and unauthorized entry of Palestinian workers from the West Bank and (work-seeking) infiltrators from the Egyptian border, and from the

¹ An increase in wages could lead to a rise in the prices of local production as the employment costs involved in the manufacture of these products increase, and to an overall price increase due to higher purchasing power in a situation where sellers on the domestic market enjoy marketing power.

Table 5.2
Principal Labor Market Indicators,^a 2007–11

	(percent change from previous year)					
	2001	2007	2008	2009	2010	2011
1. Population (annual average)		1.8	1.8	1.8	1.8	1.9
2. Working-age population		1.8	1.8	1.8	1.7	1.7
3. Participation rate in civilian labor force ^{b,c,d}	54.6	56.6	56.8	57.0	57.4	57.5
Men	60.9	62.0	62.2	61.8	62.2	62.4
Women	48.6	51.4	51.7	52.3	52.8	52.7
Prime working-age Arab women (25 to 54 years) ^c	21.2	26.0	27.0	27.3	29.0	28.3
Prime working-age mothers (25 to 54 years) with children aged 0 to 4 years) ^c	58.4	65.2	66.1	67.4	68.3	69.3
4. Civilian labor force		3.0	2.2	2.0	2.4	2.0
5. Employment rate ^b	49.5	52.5	53.4	52.6	53.5	54.2
Employment rate in the 25 to 64 year age group ^c	66.4	70.3	71.2	70.1	71.2	72.1
6. Total employees		4.5	4.0	0.5	3.1	3.1
Part time		4.5	1.3	-0.1	5.1	1.8
Israelis		4.2	3.5	0.3	3.4	2.9
Non-Israelis ^a		7.4	9.7	2.1	-0.1	4.4
7. Public services employees ^c		3.8	3.1	1.7	3.9	4.2
Public services labor input		5.5	3.3	3.4	4.2	5.2
8. Business sector employees		4.7	4.4	0.0	2.8	2.4
Israelis		4.4	3.7	-0.2	3.2	2.1
Foreign and Palestinian workers' share among business sector employees		11.2	11.8	12.1	11.7	12.0
9. Business sector labor input		5.6	4.4	0.2	2.6	2.8
Israelis		5.4	3.6	0.1	3.2	2.5
Foreign workers ^a		7.2	9.8	4.0	-2.0	3.4
Palestinians ^a		8.3	11.0	-9.4	2.8	8.7
10. Nominal wage per employee post		2.2	3.8	0.7	3.4	3.8
11. Real wage per employee post		1.6	-0.7	-2.6	0.7	0.3
In business sector		1.4	-0.7	-2.6	0.7	0.2
In public services		2.2	-0.7	-2.4	0.7	0.6
In general government sector			0.1	-1.8	1.8	0.7
12. Real minimum wage		4.5	-1.8	-1.4	-2.6	-0.2
13. Gross unit labor costs in business sector ^c		1.8	1.6	-5.2	2.7	1.2
14. Gross domestic product per labor hour in the business sector ^f		0.5	0.1	0.0	3.1	2.5
15. Unemployment rate, total ^b		7.3	6.0	7.5	6.7	5.6
Men		6.8	5.7	7.5	6.8	5.6
Women		7.8	6.4	7.5	6.5	5.6
16. Government expenditure on active labor market policy, percent of GDP ^g		0.33	0.34	0.35	0.34	0.36

^a Including reported and unreported foreign and Palestinian workers, but not work-seekers infiltrating across the Sinai border. Data on non-Israeli employees are less reliable than those on Israelis, which are based on Labor Force Surveys.

^b Data from 2009 are based on the 2008 population census.

^c Actual levels, not rates of change.

^d The participation rates for 2006–08 have been adjusted retrospectively based on changes in the sampling method in the Labor Force Surveys from 2009.

^e Including public administration, education, health, etc., a large part of which activity is financed by the government, but is sometimes performed by companies and nonprofit organizations.

^f At constant prices

^g Including expenditure on training courses, employment services, programs to integrate recipients of benefits into the labor force, etc.

SOURCE: The Central Bureau of Statistics Labor Force Surveys and National Accounts data

renewed quotas for foreign workers. The labor supply on the part of these workers is filling the growth in demand for labor in industries that are not human-capital intensive (construction, accommodation services, and trade) and has boosted employment in those industries without prompting a rapid upturn in the real wage. In human-capital intensive industries however, employment has expanded only to a moderate extent. This situation is consistent with the absence of significant indications of a labor supply-side constraint in most business sector industries. There are however, signs of a supply-side constraint in specific industries and occupations, such as construction, engineers in all industries and nurses.

Table 5.3
Principal Labor Market Indicators, 2007–10^a

	(Thousands, annual averages)									
	2007	2008	2009	2010	2011	Change from previous year				
						2008	2009	2010	2011	
1. Mean population ^b	7,220.9	7,353.5	7,485.6	7,623.6	7,765.7	132.6	132.1	138.0	142.1	
2. Working-age population ^c	5,213.5	5,305.2	5,398.7	5,488.6	5,584.9	91.7	93.5	89.9	96.3	
3. Civilian labor force ^c	2,949.0	3,013.4	3,072.9	3,147.1	3,204.2	64.4	59.5	74.2	57.1	
4. Employees, total ^{d,e}	2,981.3	3,101.8	3,116.9	3,214.0	3,312.6	120.5	15.1	97.1	98.5	
Israelis	2,735.0	2,831.6	2,841.0	2,938.3	3,024.7	96.6	9.4	97.2	86.4	
<i>of whom: Part-time^b</i>	793.6	804.0	803.1	851.5	843.7	10.4	-0.9	48.4	-7.8	
Men	1,466.5	1,514.5	1,502.3	1,551.8	1,620.3	48.0	-12.2	49.5	68.5	
Women	1,268.4	1,317.0	1,338.7	1,386.5	1,415.8	48.6	21.7	47.8	29.3	
Non-Israelis	246.3	270.2	275.9	275.8	287.9	23.9	5.7	-0.1	12.1	
<i>of whom: Foreign workers^b</i>	193.2	211.3	220.2	215.2	222.0	18.2	8.9	-5.0	6.9	
Palestinians	53.1	58.9	55.7	60.6	65.9	5.8	-3.1	4.9	5.2	
5. Public-services employees ^{d,e}	811.1	835.9	850.0	883.4	920.3	24.8	14.1	33.4	36.9	
6. Business-sector employees ^{d,e}	2,170.2	2,265.9	2,266.9	2,330.6	2,386.8	95.7	1.0	63.7	56.2	
7. Number of unemployed ^c	214.0	182.3	231.9	208.9	181.0	-31.7	49.6	-23.0	-27.9	
8. Claims for unemployment benefit	62.9	59.6	88.6	75.9	71.9	-3.3	29.0	-12.7	-4.0	
<i>of which: New claims</i>	13.2	13.2	18.0	14.7	14.7	-0.1	4.8	-3.2	-0.0	
9. Vacancies in business sector ^f	92.6	71.4	37.5	54.0	63.9	-21.1	-34.0	16.6	9.9	
Balance of vacancies filled in business sector ^c	7.6	7.9	8.0	8.2	8.6	0.3	0.1	0.3	0.3	
10. Nominal wage per employee post (NIS/month)	7.3	7.6	7.6	7.9	8.2	0.3	0.1	0.3	0.3	
Public services	8.1	8.5	8.6	9.0	9.4	0.4	0.1	0.4	0.4	
Business sector	7.8	8.1	8.1	8.4	8.7	0.3	0.1	0.3	0.3	

^a Including reported and unreported (to National Insurance) foreign and Palestinian workers. Data on non-Israeli employees are less reliable than those on Israelis, which are based on the Labor Force Survey.

^b The data from 2009 are based on the 2008 population census.

^c Labor Force Survey data.

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

^e Israeli and non-Israeli employees.

^f Data from the Employers Survey.

SOURCE: The Central Bureau of Statistics Labour Force Surveys and National Accounts data; National Insurance Institute data; and Employers Surveys of the Ministry of Industry, Trade and Labor.

Moreover, Box 5.1 provides evidence of decreased friction in the labor market in the years preceding the 2006–08 global recession, which could be indicative of a decline in the rate of natural unemployment. This evidence includes a decrease in the rate of transition from employment to non-employment in the first half of the 2000s, which conforms to the decline in the unemployment rate per given job vacancy (a left shift of the Beveridge curve). The evidence of reduced friction in the labor market, together with evidence of labor supply elasticity, weaken the claim that had the prosperity in the Israeli economy continued in the second half of the year, pressures for a continued rise in wages and in inflation would have developed.

In 2010 the government set as employment targets: the increase in the general employment rate of the prime working age group (25–64) from 71 percent at the time when the decision was made to 76.5 percent by 2020. This target is ambitious in view of the demographic changes that are forecast, such as an increase in the proportion of populations notable for low employment rates (Arab women and ultra-Orthodox men) in Israel's population. During the last decade, the employment rate of Arab women in the prime working age group increased concurrently with a rise in their level of education. Box 5.2 presents initial evidence of a rapid increase in the employment rate of ultra-Orthodox men in the business sector during the two years 2010 and 2011, which are notable for vibrant demand for labor. For the employment targets to be attained and as recommended by the Committee for Economic and Social Change, government policy aimed at encouraging employment and enhancing the human capital in all sectors of the Israeli society is necessary.

Box 5.1

Evidence of increasing efficiency in the labor market in Israel

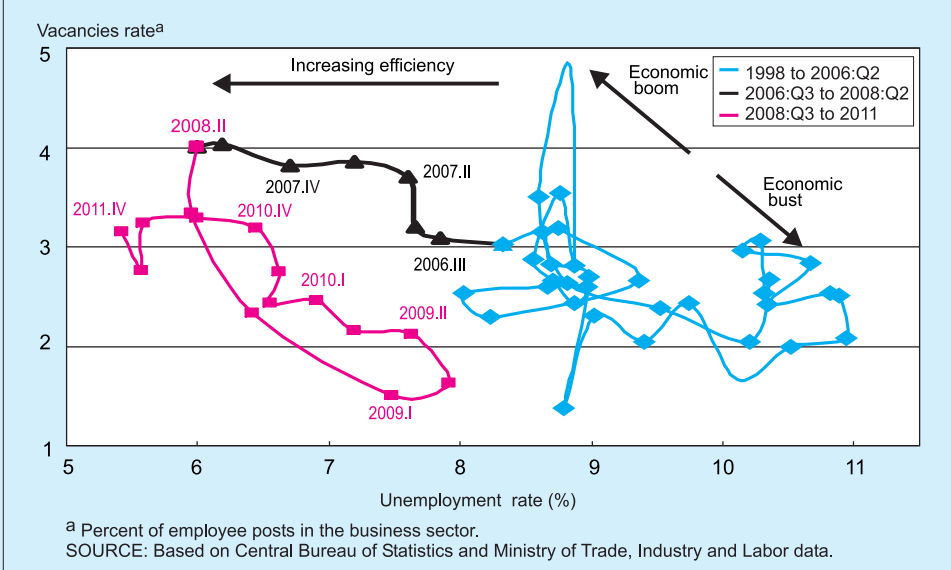
The unemployment rate fell considerably during the past five years. Moreover, the Israeli labor market proved surprisingly elastic in its response to the global recession (as described in Chapter 5 of the Bank of Israel Report for 2009), and the unemployment rate fell again once demand in the economy recovered. This was in contrast to many developed economies, in which the rebound in economic activity was not accompanied by increased employment (i.e., a jobless recovery). A plausible reason for the Israeli labor market's response may have been reduced friction, meaning a decrease in job-search cost and better matching of workers and employers. A decrease in this cost shortens the time spent looking for work, for both the unemployed and the employed, and higher quality matching reduces the separation rate.

Job-search theory provides a key macroeconomic framework for the analysis of the labor market as a whole and the level of unemployment and the rate of job

vacancies in particular. This theory is based on the assumption that finding work on the part of the worker and finding workers on the part of employers requires time and resources. The lower the cost of job search and the rate of separation between workers and employers, the more the efficiency of the labor market will increase and the ratio of unemployment to a given demand for new workers will decrease.¹

The friction in the labor market is often analyzed by means of the Beveridge curve, which is presented in the space of unemployment rates and job vacancy rates (Figure 1). In a hypothetical, frictionless economy, the labor market clears at equilibrium, with neither any unemployed nor any job vacancies (the economy is at the origin of the graph). But in an economy with friction in the labor market, where job search requires time and resources, and workers leave their employers, unemployed persons who fail to find work exist at a time when job vacancies remain unfilled. The Beveridge curve represents the relationship between the unemployment rate and the job vacancy rate in the course of business cycles: an increase in the unemployment rate and decrease in the job vacancy rate during an economic slump, and a decrease in the unemployment rate and an increase in the job vacancy rate at a time of economic prosperity. A leftward shift in the curve reflects reduced friction, and proximity to a situation of a frictionless labor market (the origin in the graph).

Figure 1
Unemployment Rate and Vacancies Rate in the Business Sector,
1998-2011 (Beveridge Curve)



¹ C. A. Pissarides. "Equilibrium in the Labour Market with Search Frictions Prize Lecture, December 8, 2010". AER 101:4. pp: 1092-1105.

During the years 1998–2006 (the blue line), which included the boom period at the end of the 1990s, the slump at the beginning of the 2000s and the initial recovery in 2004–06, unemployment levels over the business cycles as reflected by the job vacancy rate in the business sector were high, at 8–11 percent. During the boom of 2006–08, the unemployment rate fell rapidly, to a level of 6 percent prior to the onset of the global recession, concurrent with a moderate increase in the job vacancy rate (the black line). During the last business cycle at the end of 2008–11 (the red line) however, the fall in the job vacancy rate at the beginning of 2009 did not lead to any large rise in the unemployment rate to the level prevailing at the beginning of the decade, when the job vacancy rate was at a similar level. This shift in the Beveridge curve is consistent with reduced friction and increased efficiency in the labor market.

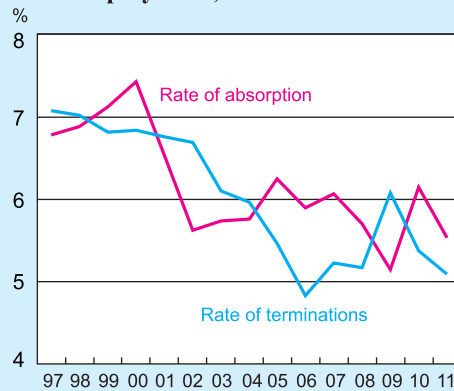
In the USA the opposite process of a right shift in the Beveridge curve was identified in recent years, reflecting a growth in demand for new workers which does not lead to the absorption of workers and a decline in unemployment, due to increased friction in the labor market.² A plausible reason for the difference between the American economy and the Israeli economy is the prolongation of the recession in the USA, which eroded labor market attachment there, as compared to the rapid recovery in Israel which prevented such erosion. Another possible reason for the increased friction in the American labor market was the reduced mobility of unemployed who are unable to sell their homes because of the recession in the real estate market in the USA.

Further evidence of a fundamental change in the Israeli labor market is the reduced rate of transition from employment to non-employment (unemployment and non-participation in the labor force) from 7 percent of the entire prime working age population (25–64) at the end of the 1990s and the beginning of the 2000s to 5 percent in the years 2006–11 (Figure 2). This employment transition rate is calculated as the rate of those who were not employed (unemployed and non-participant) in a given year but were employed in the previous year. The rate of transition from employment to unemployment is therefore the share of workers who separated from their employers but were unable to find a new place of employment. Accordingly, a decrease in the rate of transition from employment to unemployment reflects an improvement in the matching between workers and employers and/or a shortening of the time taken to find new employment by workers who separated from their employers. Most of the decrease occurred in the years 2003–06, which could explain the shift in the Beveridge curve apparent in the years 2006–08.

² Regis Barnichon, Michael Elsby, Bart Hobijn, Aysegul Sehin (October 2011). “Which Industries are Shifting the Beveridge Curve?” Federal Reserve Bank of San Francisco., Working Paper 2010-32.

At this stage, we are unable to fully explain the circumstances behind the changes in the labor market. However, it can be assumed that if the shift in the Beveridge curve is the result of fundamental factors, such as a change in the composition of the labor force and structural and institutional changes, the Israeli economy will probably be at an equilibrium at a lower unemployment rate during the coming business cycles than in the past. In other words, this analysis indicates a reasonable probability of a decline in the natural unemployment rate in Israel in the coming years.

Figure 2
Rates of Terminations and Absorption in Employment, 2002-11

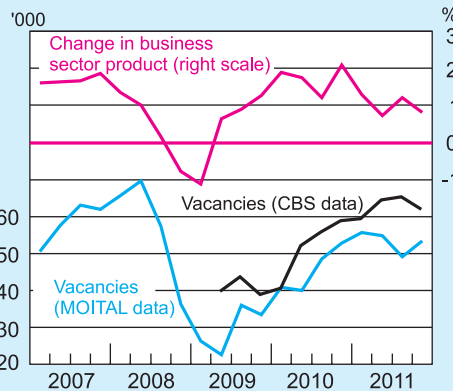


* The rates are percentages of the main working age population (aged 25-64 years).
 ** The switch from being employed to unemployed and vice versa are a year apart.
 SOURCE: Based on Central Bureau of Statistics data.

2. THE DEMAND FOR LABOR

The demand for labor continued to expand rapidly in the first half of 2011, and at a slower rate in the second half. The growth in demand for new workers in the business sector, which reflects the number of job vacancies, was characteristic of the recovery from the recession from mid-2009 until mid-2011. The slower growth in this demand in the second half of 2011 is connected with the reduced business sector product growth rate from the second quarter of the year and the fall in exports in the second half (Figure 5.1). The fall in demand for labor is reflected by the number of job vacancies, on the basis of both Central Bureau of Statistics estimates and Ministry of Industry, Trade and Labor estimates. The increase in the number of job vacancies during the boom period of 2007 and the first half of

Figure 5.1
Vacancies in the Business Sector and Growth of Business Sector Product, 2008-11



SOURCE: Business sector product—Central Bureau of Statistics; Vacancies—Ministry of Industry, Trade and Labor, and Central Bureau of Statistics.

The demand for labor continued to expand during the first half of the year. This expansion slowed in the second half concurrent with the downturn in business sector product.

2008, and the decrease in this number at the onset of the global recession at the end of 2008 and the beginning of 2009 are also indicative of the relationship between the number of job vacancies and business sector product (Figure 5.1).

Business sector demand for labor was centered on a variety of occupations among those with and without higher education, such as graduate professionals, clerical staff, sales agents, service workers and skilled workers in manufacturing and construction. The demand for unskilled workers, members of the free professions, technicians and managers grew more moderately (Table 5.4).

An exceptionally large growth in demand was recorded for workers in occupations connected with the construction industry: The number of job vacancies for builders, building workers, engineers and architects increased rapidly in 2011 compared with the previous year. The growth in demand for construction workers was also reflected by the ratio of job vacancies to employed persons in these occupations, and by the high ratio of the number of job vacancies to unemployed persons in the same occupations—one unemployed for every three and a half job vacancies. The government alleviated the shortage of these workers by increasing the quotas for Palestinian workers and renewing the quotas for foreign workers in the construction industry, in contrast to the measures that had been planned in this respect (see Section 3b). It would however be appropriate to examine how the import of foreign workers should be managed without impairing the training and employment of Israelis in the same occupations, in order to ensure that future demand will be filled mainly by Israeli workers. The

Table 5.4
Vacancies^a in the Business Sector, by Occupation, 2011

	Average no. of years of schooling ^b (2010)	Vacancies 2011 ('000)	Change from 2010 (%)	Vacancies as percent of employed persons ^c	Vacancies as percent of unemployed persons ^{c,d}
Total	13.2	63.9	23.1	2.8	0.92
Professions requiring higher education	18.0	7.5	24.7	2.2	1.42
<i>of which:</i> Engineers and architects	17.4	3.8	20.1	4.9	2.88
Economists, psychologists, accountants, etc.	17.7	1.0	33.8	1.6	0.71
"Free" professions and technical occupations	15.4	6.4	3.2	1.8	0.99
Managers	15.3	1.2	6.1	0.8	0.35
Clerical staff	13.8	7.4	24.2	2.1	0.54
Agents, sales staff and service providers	13.2	17.0	23.7	3.7	0.95
Skilled workers in manufacturing and construction	12.1	16.9	45.1	4.6	1.32
<i>of which:</i> Skilled construction workers	11.0	5.6	122.2	12.7	3.67
Unskilled workers	11.6	5.6	2.1	3.4	0.70
Unknown	17.7	1.7	5.5	4.4	

^a Including private companies.

^b The average number of years of education refers to the employed persons in the relevant occupation in 2010.

^c Percent of those employed or unemployed in January to September 2011.

^d Percent of those who worked some time during the previous twelve months, which determines the occupation they are listed under.

SOURCE: Central Bureau of Statistics.

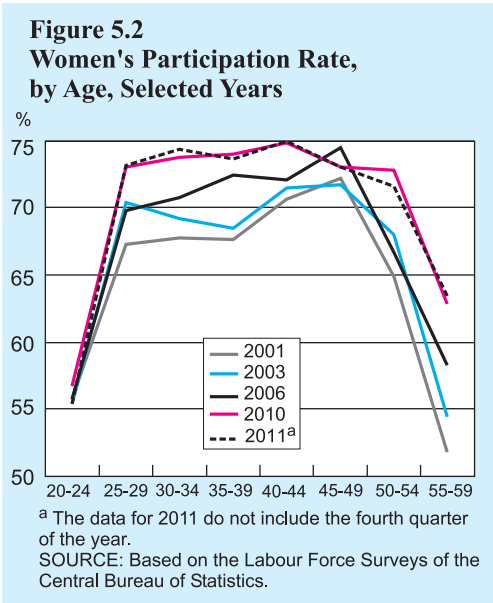
ratio of job vacancies for engineers and architects to the number of unemployed in those professions is also indicative of a shortage of workers. However, in contrast to training in construction industry occupations which last for just a few months, training in these professions is lengthy and requires far more resources than are necessary for building workers.

3. THE SUPPLY OF LABOR: THE WORKING-AGE POPULATION AND THE CIVILIAN LABOR FORCE

a. Israeli workers

As in previous years, the population in Israel, and especially the prime working age population, grew at a rate of 1.9 percent.² During the last decade the participation rate of the prime working age population rose as the result of a slow increase in the participation of men in the labor force and a substantial increase in the participation rate of women. A small part of the increase in women’s participation rate derived from an appreciable growth in the participation rate of Arab and ultra-Orthodox women, and from a moderate rise in the participation rate of non-ultra-Orthodox Jewish women. Another notable development was an increase of over 10 percentage points in the participation rate of mothers of 0–4 year-old children (Table 5.2, section 3).

The growth in the participation rate of women in the labor force was not uniform among the different age groups. For example, at the beginning of the decade the participation rate of women in the principal child-bearing age group (25–40) was relatively low, while the corresponding rate among women in their forties was higher (Figure 5.2). This pattern is consistent with the limited participation of young mothers in the labor force. The participation rate of women aged 25–40 increased over the years, and in 2010–11 the rate among those women amounted to 73 percent, a figure that was quite uniform over this age range. The growth in the employment of child-bearing-age women and mothers of infants encompassed women from all sectors of the population, including Arab and ultra-Orthodox women. The rise in participation rates and the employment of women aged 25–40 is increasing the



The supply of labor on the part of Israelis increased during recent years, mainly due to the higher participation rate among women. The increase ceased in 2011.

In the last decade employment increased among women aged 25–39, and among mothers of infants. This employment expansion is increasing the need for reducing expenditure on child rearing.

² According to Central Bureau of Statistics demographic forecasts, the rate of growth in the working-age population during the next decade is expected to fall to only 1.2 percent. The implications of this significant decline are analyzed in Chapter 1, Section 6a.

pension rights accrual of these women, and reduces the human capital of those with a higher education. Accordingly, the new participation profile presented above is likely to reduce the gender wage gap and the gender employment gap over the life cycle.

The flat participation profile in the 25–45 age range suggests that the participation rate of young women is close to reaching a peak, thereby explaining the moderate increase in this rate during recent years. The change in the participation profile of women by age highlights the importance of reducing the costs of child-rearing by means of subsidization, the construction of crèches and nursery schools, and the implementation of the Law for the Free Education of 3–4 Year Olds. This will make it easier for non-working young mothers to actually go out to work, and enhance the welfare of families in which the mothers work and expend a considerable part of their income in daycare for infants (Box 5.3).

The participation rate of men aged 65–66 and women aged 60–61 rose during recent years due to the increase in the retirement age in 2004 from 65 to 67 for men and from 60 to 62 for women. (For details, see Box 5.1 in the Bank of Israel Report for 2010.) The Nissan Committee recommended a further increase in the retirement age of women to 64 from 2012, and its eventual equalization to the retirement age of men (67) by 2026. However, the Knesset rejected this recommendation and left the retirement age of women as it is until 2017. This decision is expected to moderate the rise in the participation rate of women aged 63–64 which we believe would have resulted from a change in the law, as happened with previous increases in the retirement age.

b. Non-Israeli workers

The growth in the number of non-Israeli workers resumed in 2011 and according to Central Bureau of Statistics estimates this number reached nearly 290,000—12 percent of business sector employees. Not included in the Central Bureau of Statistics estimates were those who entered the country illegally from the Egyptian border. The Population and Immigration Authority at the Ministry of the Interior assessed the number of the latter at 51,000, of which 15,000 arrived in 2011.³ The increase in the number of non-Israeli workers conflicts with the objectives of the socio-economic agenda which the government adopted on the basis of the prevailing working assumption in Israel that the employment of foreigners harms the employment and wages of Israelis.⁴

The increased employment of Palestinians in Israel results from the larger number of permits issued for them and from the increased employment of Palestinians without a permit as well. In January 2011 the Socioeconomic Cabinet decided to raise the quota of work permits for Palestinians within the Green Line (pre-1967 Israel) and Jerusalem by 4,000 permits in the construction industry and by 1,250 in the agricultural

³ The Population and Immigration Registry (December 2011) “Data on foreigners in Israel”.

⁴ The effect of foreign and Palestinian workers on Israeli workers is analyzed in the OECD publication International Migration Outlook, SOPEMI (2011), Part III.

The number of non-Israeli workers, including work-seeking infiltrators from the Egyptian border and authorized and unauthorized Palestinian workers, continued to rise in 2011.

industry. However, implementation of the decision was delayed and by December 2011 only 80 percent of this quota had been filled. Apart from the growth in the legal employment of Palestinians, the Palestinian Central Bureau of Statistics estimates show that the number of Palestinians working in Israel without a permit rose from 15,000 in the second half of 2011 to 21,000 in the second half of 2011.

During 2011 the Israeli government signed agreements with the governments of Thailand and Bulgaria for the import of workers to the agricultural and the construction industries, and also postponed the date for ending the employment of foreign workers in the construction industry until 2016. These agreements are intended to reduce the negative aspects of the employment of foreign workers, such as the charging of illegal commissions by private intermediation agencies and the payment of less than the minimum wage, which harms both foreign workers and Israeli workers lacking a higher education who compete with them. The government plans to sign a similar agreement with Rumania for the import of workers for the construction industry.⁵

The decision to import new foreign workers for the construction industry conflicts with the government's resolutions to reduce the number of non-Israeli workers in the economy. It also conflicts with the basic recommendation of the government committee for the regulation of the employment of Palestinian workers (the Eckstein Committee), which is to prefer Palestinian workers over foreign workers. This recommendation derives from political and security considerations, and from the weaker negative effect on Israeli workers. Government resolutions on the matter have been notable for their inconsistency: The government postponed the target date for the end to the employment of foreign workers in the construction industry four times in the last five years.⁶ This lack of consistency signals to contractors that they do not really need to train and absorb Israeli workers in the industry, as foreign workers will likely be available to the construction industry in the future as well.⁷

The lack of consistency in government policy regarding cessation of the employment of foreign workers in the construction industry signals to contractors that they do not really need to train and absorb Israeli workers in the industry.

⁵ In addition, the government is continuing with a pilot project whereby 300 seasonal agricultural workers were imported from Sri Lanka for a period of half a year. This pilot project is intended to enable farmers to employ foreign workers in the relevant seasons, while reducing the negative effects of these foreign workers on the employment of Israelis, and also to reduce the chances that they will outstay the pre-defined period for their employment in Israel.

⁶ The government decided in 2006 to end the employment of foreign workers in the construction industry by 2010; in 2009 it postponed the application of the decision to 2012, in 2010 decided on a further postponement to 2013, and in 2011 decided to postpone the target date to 2016—government resolutions nos. 446 (2006), 147 (2009), 1066 (2009), 2080 (2010) and 3453 (2011). The policy processes are detailed in Natan, Gilead, (December 13, 2011). “Non-Israelis in Israel (foreigners, foreign workers, refugees, infiltrators and asylum seekers): The situation in 2010–2011,” Knesset Research and Information Center.

⁷ It should be noted that the government announced a project to train workers for the construction industry. As of October 2011, only 260 persons had been trained, of whom 150 persons or 60 percent were absorbed in the industry. A minimum wage in the construction industry was also announced (see “Government policy and institutional changes”).

4. EMPLOYMENT AND WAGES

a. Employment in the different sectors of Israeli society and employment targets

Despite the continued growth in the employment rate in the principal working-age group, a considerable expansion of employment, particularly among ultra-Orthodox men and Arab women is necessary if the employment targets for 2020 are to be attained.

Like participation rates, employment rates rose slowly among men and rapidly among women in the last decade. Although employment rates rose to a notable extent among Arab and ultra-Orthodox women, they increased among non-ultra-Orthodox Jewish women as well. Estimates of employment rates among the ultra-Orthodox show a rapid expansion in employment in that sector in the last two years, following the end of the global recession (see Box 5.2).

However, resolute employment policy is necessary if the government's ambitious employment targets for 2020 are to be attained. This is because employment rates in all population groups are below target, especially—by over 15 percentage points—among Arab women and ultra-Orthodox men. The slowdown in the Israeli economy in the second half of 2011 will make it difficult to achieve the employment targets, particularly among populations that are at the margins of the labor market such as the ultra-Orthodox and Arabs.

Table 5.5
Rates of Employment, and Target Employment for 2020, for those Aged 25–64 Years

	2001 ^a	2008 ^a	2009	2010	2011 ^b	2020 target
Total	66.6	71.2	70.1	71.2	71.9	76.5
Men	74.7	77.7	75.8	76.7	77.7	
Women	58.8	64.9	64.6	65.8	66.3	
Arab men	65.4	71.8	70.5	70.7	72.2	78
Arab women	19.6	24.4	25	26.6	26.8	41
Ultra-orthodox men ^c	38.9	39.6	38.7	42.2	45.6	63
Ultra-orthodox women ^c	47.8	57.4	59	61.9	61.2	63
Other Jewish men	78.6	81.7	79.7	80.7	81.4	83
Other Jewish women	67.1	74.0	73.6	74.8	75.3	
Those with up to 12 years of education	57.4	61.8	60.7	61.7	62.9	
Those with 13+ years of education	77.0	79.7	78.2	79.1	79.6	

^a Data for 2001 and 2008 were adjusted retrospectively based on the weighting coefficients of 2009.

^b Data for 2011 do not include the last quarter of the year.

^c The ultra-orthodox are defined as families in which the last educational institute attended by at least one member of the family was a talmudic college (the definition used by the National Economic Council, on which the target employment rates are based).

SOURCE: Employment rates—based on Labour Force Surveys; Employment targets—Government decision 1994 (July 2010).

Box 5.2**Evidence of a rapid increase in the employment rate among ultra-Orthodox men during 2010-11¹**

An analysis of Central Bureau of Statistics Labour Force Surveys (LFS) points to a rapid increase in the employment rate among ultra-Orthodox men (according to a broad definition of ultra-Orthodox) from about 39 percent in 2009 to about 45 percent in 2011. Most of the increase has taken place in the business sector. The increase in the employment rate among the ultra-Orthodox populations, particularly among ultra-Orthodox men, has been defined as one of the main targets on the socioeconomic agenda. The Tal Committee prescribed a one-year period of adjustment for individuals leaving yeshivas in order to facilitate their integration within the labor market. The government even set a target to increase the employment rate among ultra-Orthodox men of working age from about 40 percent in 2008 to 63 percent in 2020. The increase in the employment rate among the ultra-Orthodox takes on even greater importance in view of their growing proportion of the working-age population.

An analysis of the changes in employment patterns among ultra-Orthodox men is made difficult by the problem of defining and identifying the ultra-Orthodox population figures in the official data and in surveys.² In the labor force surveys, a household is identified as ultra-Orthodox if it includes an individual whose last place of study was a higher level yeshiva. This definition includes the population of yeshiva graduates from non-ultra-Orthodox yeshivas, such as the Hesder yeshivas, and excludes ultra-Orthodox individuals who studied in another institution following the completion of their yeshiva studies. The difficulty of identifying the ultra-Orthodox population becomes even greater with the implementation of the employment supporting policy for this population, which induced many ultra-Orthodox men to study toward higher education in a non-yeshiva institution.³

In order to deal with this problem, this analysis made use of two definitions: households which include graduates of higher yeshivas in that year (the definition of the National Economic Council) and households in which there are “continuing” yeshiva graduates (who have been identified in the LFS as

¹ Continuing a discussion in Box 5.2 in the 2010 Annual Report.

² For a comprehensive discussion of the methods for identifying the ultra-Orthodox population see: Y. Freidman, et al. (March 2011), “Methods for measuring and estimating the size of the ultra-Orthodox population in Israel”, Central Bureau of Statistics; H. Levine and R. Hacoheh (July 2010), “Methods for identifying and quantitatively characterizing the ultra-Orthodox sector”, National Economic Council.

³ The number of ultra-Orthodox who have acquired a higher education or training that is oriented towards the labor market has grown from about 2,000 since the middle of the previous decade to about 6,000 in 2010 and the number of ultra-Orthodox students in academic institutions has grown from a few hundred to about 2,500.

yeshiva graduates in least two consecutive years), who make up a “core” of the ultra-Orthodox population. The ultra-Orthodox employment target set by the government relates to the former definition while the second definition reduces estimation bias that is the result of subsequent studies in a non-yeshiva institution. The analysis also differentiates between employment in general and employment in the business sector, excluding religiously-oriented professions (kosher food supervisors, ritual slaughterers, etc.). This is done in order to examine the integration of ultra-Orthodox men in economic activity that is not traditionally associated with the ultra-Orthodox sector.

The employment rate among male yeshiva graduates and their household members according to both definitions has risen sharply: from about 39 percent in 2009 to about 45 percent in 2011 according to the broader definition (of the National Economic Council) and from 31 percent to about 38 percent among “continuing” yeshiva graduates, and their household members. The particularly rapid rise according to the second definition indicates that this is not a statistical outlier but rather a bona fide change, which is taking place among the “core” of the ultra-Orthodox population. In addition, the fact that the employment rate has remained high over a period of two years—in contrast to the temporary rise in 2006—strengthens the assessment that a genuine change has indeed taken place. Finally, the rapid increase in employment in the business sector, excluding religiously-oriented professions, indicates that the participation of ultra-Orthodox men in general economic activity is on the rise. As of now, we are unable to evaluate to what extent the government employment policy towards the ultra-Orthodox population, the Tal Law which was passed about a decade ago and cancelled by the Supreme Court in 2012 or other factors, such as the general increase in demand for labor during the last two years, contributed to the increase in the employment rate of ultra-Orthodox.

Despite the rapid increase in the employment rate among ultra-Orthodox men, which according to the definition of the National Economic Council is about 45 percent, it is still a long way from the employment target set by the government for this population in 2020 (63 percent). Furthermore, the rate of ultra-Orthodox men employed in the business sector is particularly low relative to other Jews while the proportion employed in public services (public administration, education, etc.) including religious services exceeds one-third of total ultra-Orthodox employment. The desire to integrate the ultra-Orthodox in economic life therefore requires a significant increase in their employment rate in the business sector. Finally, the weekly number of hours worked for ultra-Orthodox employees is significantly lower than for other Jews. This situation reduces the wages of the ultra-Orthodox and makes it more difficult to lift ultra-Orthodox households to above the poverty line, which is one of the government’s employment objectives.

The Employment Rate, the Employment Rate in the Business Sector, and Weekly Hours Worked for Yeshiva Graduates and Other Jews, 2002–11^a

	Yeshiva graduates (the National Economic Council) ^b			“Continuous” yeshiva graduates ^b			Other Jews		
	Employment rate (%)	Employment rate in the business sector ^c (%)	Weekly hours worked	Employment rate (%)	Employment rate in the business sector ^c (%)	Weekly hours worked	Employment rate (%)	Employment rate in the business sector ^c (%)	Weekly hours worked
2002	35.6	17.1	40.3	29.0	11.0	38.4	77.9	63.7	47.6
2003	36.4	18.6	39.3	28.9	10.5	36.7	77.3	63.6	47.6
2004	36.5	18.7	39.7	25.2	11.6	39.7	78.2	64.8	47.6
2005	38.0	19.2	41.3	25.7	13.0	38.9	78.8	65.7	47.5
2006	40.2	19.5	38.7	34.4	15.4	37.5	79.9	67.2	47.4
2007	38.2	19.3	40.0	29.5	11.3	36.4	81.6	68.4	47.5
2008	39.6	19.9	38.4	29.3	11.5	35.7	81.7	68.5	46.8
2009	38.7	18.4	39.3	30.7	10.3	35.9	79.7	66.8	46.2
2010	42.2	21.3	37.7	34.1	15.0	37.7	80.7	67.6	46.3
2011 ^d	45.6	24.6	39.5	38.3	17.1	37.2	81.4	68.8	46.0

^a Data for the years 2002-08 were concatenated according to the weights of the 2008 census for yeshiva graduates and other Jews, though not for “continuous” yeshiva graduates (for technical reasons).

^b Yeshiva graduates are Jews in a household with a member whose last school in the relevant year was a higher yeshiva or they lived in one of the ultra-Orthodox cities (according to the definition of the National Economic Council). “Continuous” yeshiva graduates are Jews in a household where the last school of one of its members during the previous year and during the current year was a higher yeshiva.

^c The rate of employment in the business sector does not include individuals employed in occupations related to religious services, ritual slaughter, kosher food supervision, etc.

^d First three quarters of the year.

Source: Based on Central Bureau of Statistics Labour Force Survey data.

A moderate increase in ultra-Orthodox employment during the period 2008-09 was identified by the National Insurance Institute on the basis of administrative data⁴; however this increase was not reflected in the labor force surveys of 2008-09. The current analysis is the first publication (as far as we know) of the rapid increase in the rate of participation among ultra-Orthodox men during the period 2010-11, which until the second half of 2011 was characterized by a high level of demand for labor. Thus, the trend indicated by the estimates presented here may be temporary or it may be biased as a result of the method of identifying the ultra-Orthodox population in the LFS. Only with the help of data from additional sources, in addition to future data for periods that are not boom years, will it be possible to determine whether in fact there has been a historic transition in the employment patterns of the ultra-Orthodox.

⁴ D. Gottlieb and E. Toledano, “Employment composition by population group in Israel during the 2000s”, Position paper, National Insurance Institute of Israel (November 7th, 2011). In Hebrew.

b. Employment and wages in the business sector

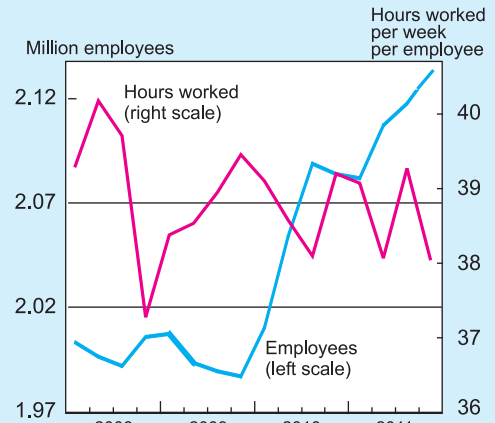
While the growth in business sector employment continued throughout the year, the number of work hours per employed person was volatile.

Following the previous year's expansion, employment in the principal industries continued to grow in the first half of 2011 concurrently with the recovery from the global recession. The downturn apparent in the economy in mid-2011 was reflected by an end to the growth in the number of employee posts in the business sector from July 2011. However, the downturn has yet to be reflected by the number of employed persons and the nominal wage per employee post, which continued to rise in the second half of the year. Most of the employment growth in the business sector was among Israeli employees, although the number of Palestinian workers and foreign workers increased as well. It can be assumed that the employment expansion in the first half of the year resulted from the growth in demand for labor and the supply of labor together. The growth in demand was also apparent from an increase in the number of employee posts, and by a rise in the nominal wage and the real wage adjusted by the GDP deflator. Against the background of the small increase in the nominal wage and in the real wage adjusted by the GDP deflator, the growth in the supply of labor was reflected by increased employment.

Although the uptrend in labor input (total work hours) in the business sector apparent in recent years continued, it was volatile from quarter to quarter. The fluctuations in labor input in 2011 resulted mainly from changes in work hours per employee concurrent with a relatively slow increase in the number of employed persons, and especially salaried employees. This was after the previous year's growth in labor input derived mainly from a rapid increase in the number of employed persons.

Possible reasons for the slower rate of increase in the number of employed persons and particularly the number of wage-earners in the business sector were the static level of the general participation rate and in the second half of the year, concern over a downturn in economic activity, as a result of which employers refrained from hiring new workers and preferred to adjust the number of work hours per employee in order to adapt output to demand. Since Labor Force Surveys are published only once a quarter, it is difficult to analyze the downturn apparent in the second half of the year on the basis of these surveys. However, monthly data on employee posts provide a clearer picture of the turnaround in the business cycle: July 2011 saw an end to the continual increase in the number of employee posts in the business sector which

Figure 5.3
The Number of Israeli Employees and Hours Worked per Employee in Business Sector Industries, 2008-11



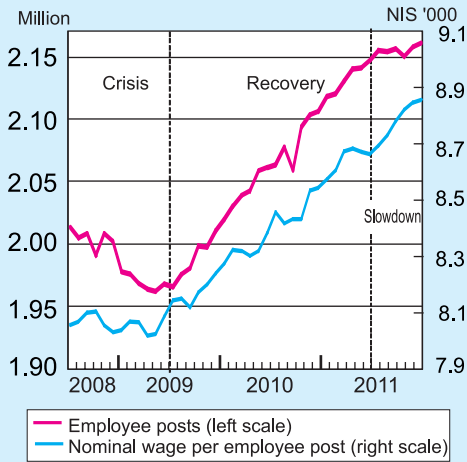
SOURCE: Labour Force Surveys of the Central Bureau of Statistics.

began with the rebound in the economy in mid-2009. In the second half of 2011, the number of employee posts in the business sector remained at 2.15 million. As previously mentioned (see the section on demand for labor), the slacker demand for labor was also reflected by data on vacancies (Figure 5.1).

However, the static level in the number of employee posts in the business sector in the second half of the year is indicative of a slower rate of growth in demand for labor, and not of an actual drop in demand as happened when the number of employee posts fell during the recession in 2008 and the first half of 2009. Neither did the rate of increase in the nominal wage slow to any appreciable extent, unlike in the recession period, when it fell slightly. A continuation of the downturn in the Israeli economy and the possibility of a double-dip global recession could result in a static level in the nominal wage per employee post as happened in the previous recession, and even a decrease in the nominal wage.

In contrast to the continued increase in the nominal wage per employee post, the real wage from the workers' aspect rose by only 0.3 percentage points. This was because average consumer prices went up by 3.45 percent due *inter alia* to the continued rise in housing prices. It should however be taken into account that the business sector product deflator rose by only one percent in 2011, leading to a 2.7 percent increase in the real wage from the employers' viewpoint. The rate of wage increase in producer prices during recent years was similar to that

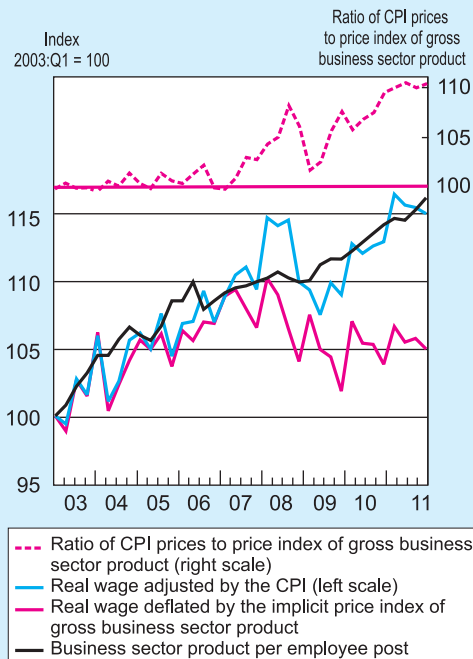
Figure 5.4
Number of Employee Posts and the Wage in the Business Sector, 2008-11



SOURCE: Central Bureau of Statistics.

The downturn in the economy in the second half of the year was reflected by an end to the growth in the number of employee posts in the business sector, although the nominal wage continued to rise.

Figure 5.5
The Real Wage per Employee Post Adjusted by the CPI and Business Sector GDP Deflator, and Real Business Sector Product per Employee Post, 2003-11



SOURCE: Central Bureau of Statistics.

While the real wage eroded from workers' aspect because of the rise in consumer prices, from producers' aspect it continued to rise because of the modest increase in the business sector GDP deflator.

in the ratio of product to employee posts in the business sector (labor productivity per employee post). As a result, employers' profits were not eroded by the increase in the real wage in producers' terms.⁸ Accordingly, the slow rate of increase in the real wage from the employees' aspect can be attributed to the difference between the rate of increase in consumer prices and the slower rate of increase in the business sector GDP deflator, a difference that amounted to 9 percent in the years 2007–11 (Figure 5.6).

The large difference between the continued rise in consumer prices and the small increase in the GDP deflator during recent years makes it possible to distinguish between demand for labor, which is affected by the GDP deflator, and the supply of labor, which is influenced by consumer prices that affect employees' purchasing power. The growth in demand for labor in the first half of the year was apparent from a continued increase in the number of employee posts and in the wage component of

Table 5.6
The Number of Employees in Selected Industries,^a 2008–11

	Average years of education	All employees							
		Employment (thousands)				Rates of change (percent)			
		2008	2009	2010	2011	2008	2009	2010	2011
Total business sector ^b		2,265.9	2,266.9	2,330.2	2,392.3	4.4	0.0	2.8	2.6
Foreign workers		209.3	218.2	213.2	220.0	9.5	4.2	-2.3	3.2
Palestinians		58.4	55.2	60.1	65.4	10.9	-5.4	8.8	8.7
Construction	11.9	214.4	207.9	222.9	228.1	3.0	-3.0	7.2	2.3
<i>of which:</i> Israelis		151.9	143.6	157.4	162.5	0.3	-5.5	9.6	3.2
<i>of which:</i> tilers, plasterers, etc. ^c		12.7	9.9	8.4	41.3	10.8	-22.6	-15.0	1.5
Palestinians		26.1	27.4	29.8	35.0	10.4	4.9	8.9	17.5
Foreign workers		36.4	36.9	35.7	31.2	10.5	1.3	-3.3	-12.6
Manufacturing	13.5	452.1	427.3	428.2	430.4	2.5	-5.5	0.2	0.5
<i>of which:</i> Electronic components	15.4	44.7	35.6	36.8	33.2	-1.9	-20.3	3.3	-9.4
Trade and vehicle repairs	13.0	402.5	393.4	404.7	420.1	5.9	-2.2	2.9	3.8
<i>of which:</i> Retail trade	13.7	205.4	201.2	207.8	219.6	5.1	-2.0	3.3	6.0
Vehicles and fuel	12.8	59.1	56.7	55.9	63.7	7.5	-4.1	-1.4	14.4
Hotels and catering services	12.4	149.2	150.3	156.1	161.0	7.6	0.8	3.9	3.1
Banking, insurance and finance	15.1	102.9	109.8	116.1	118.7	4.5	6.7	5.7	2.2
Business services	15.2	449.3	462.9	477.3	479.4	4.8	3.0	3.1	0.5
<i>of which:</i> Architecture, engineering and technical consultancy	16.2	45.3	46.1	47.6	51.4	7.9	1.7	3.2	8.2
Real estate agency and equipment rental	13.0	25.4	29.5	30.9	31.4	6.9	16.4	4.6	1.6
Transport, storage and communications	13.1	179.8	187.1	195.0	201.2	2.0	4.1	4.3	3.1

^a Including reported and unreported foreign workers and Palestinians. Data on non-Israeli employees are less reliable than those on Israelis, which are based on Labor Force Surveys.

^b Figures may not add to the total shown, because of the exclusion of "other."

^c Including wall and floor tilers, masons, iron workers and molders.

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

⁸ Figure 1.7 (Chapter 1) shows that the tax cuts in the last decade were passed through to return on capital and not to net return on labor. Employers' profits therefore actually increased because the wage increase was proportional to the growth in GDP (Figure 5.6).

GDP prices. The slacker pace of growth in demand for labor in the second half of the year was reflected by an end to the increase concurrent with a continued rise in the real wage in producer's terms. The growth in labor supply was reflected by employment growth and by an increase in employee posts in particular. This was despite the static level of the real wage in consumer prices, which eroded employees' purchasing power.

As regards employment in the business sector industries, this increased in construction and the trade industries as well as in accommodation and food services and in particular in the hotel industry as the number of overnight hotel stays rose during the year. Employment in the trade industry continued to grow due to the continued sales growth in the retail trade industry since the exit from the recession in 2010. Employment in the vehicle and fuel industry expanded rapidly following two years of contraction, concurrent with increased vehicle sales in 2010 and 2011. However, the rapid employment growth typical of the financial and business services sector in recent years ended. Employment in manufacturing rose marginally while employment in the electronics components and electronic communications equipment industry continued to contract, from 45,000 employed persons prior to the global recession (2007–08) to about 33,000 in 2011.

Slow increase in employment in human-capital-intensive industries, as compared to considerable employment growth in non-human-capital-intensive industries.

Table 5.7
Number of Employee Posts and Change in Real Wage per Employee Post,^{a,b} Selected Industries, 2008-11

	Employee posts					Real wage per employee post				
	2011 (‘000)	Rate of change (%)				NIS/month	Rate of change (%)			
		2008	2009	2010	2011		2008	2009	2010	2011
Total	3153.4	3.9	0.3	3.9	3.7	8,557	-0.7	-2.6	0.7	0.3
Israelis	3026.4	3.3	0.2	3.9	3.5	8,735	-0.3	-2.5	0.7	0.3
Business sector, total	2144.2	4.0	-0.9	4.1	3.8	8,724	-0.7	-2.6	0.7	0.2
Israelis	2045.6	3.3	-1.0	4.0	3.5	8,909	-0.2	-2.6	0.7	0.3
Agriculture, total	86.2	6.4	-1.7	1.6	4.0	5,247	-2.7	-0.3	0.9	-0.5
Israelis	53.8	-1.0	2.1	2.8	2.6	5,840	1.0	0.0	1.1	-0.1
Manufacturing—Israelis	366.3	2.3	-2.6	2.2	1.8	12,054	-1.8	-2.2	1.8	0.4
Electricity and water—Israelis	17.6	-3.2	1.5	2.3	2.3	21,928	3.0	-0.3	1.7	0.1
Construction, total	174.8	0.7	-0.6	4.9	6.4	7,377	1.1	-2.0	1.1	1.9
Israelis	147.1	-1.4	-1.2	5.6	6.4	7,827	2.5	-1.9	0.7	1.1
Financial services—Israelis	102.0	5.3	5.4	4.2	4.2	15,764	1.1	-12.9	4.1	0.4
Business services—Israelis	549.1	3.8	-3.1	4.6	4.7	9,289	1.6	-2.6	0.9	1.2
Trade and repairs—Israelis	424.1	4.3	-0.8	4.8	3.0	7,496	-1.1	-2.5	0.2	-0.5
Transport, storage and communications—Israelis	174.1	5.0	0.6	3.6	3.2	9,812	-2.4	1.2	-3.9	0.8
Public services	171.1	3.4	1.7	4.0	4.7	4,236	-1.3	-0.9	1.7	0.5

^a Real monthly wage per employee post according to National Insurance Institute reports. Includes reported Palestinian and foreign workers, unless otherwise indicated.

^b The sectors are defined according to industry and not employers' classification.

SOURCE: Central Bureau of Statistics.

Employment in non-human-capital-intensive industries (the trade, construction, and food and services industries) therefore expanded rapidly, and demand in those industries was filled by the elastic supply of such workers (see the section on the supply of labor). This contrasted with the employment in human-capital-intensive industries (finance, business services and manufacturing), which did not expand rapidly or even declined. It seems this may be why no evidence exists of a labor supply constraint in major industries, such as manufacturing, where employment and the real wage remained unchanged; trade, where employment expanded rapidly and the real wage fell; and the business services industry, where the real wage rose only slightly despite an increase in the number of employee posts.

The rise in real estate prices led to higher employment in the construction and allied industries.

The principal industry that shows signs of a labor supply constraint, which had the effect of slightly increasing the real wage, was the construction industry. Employment in construction, including employment of Israelis, continued to expand rapidly during the year, and the real wage in the industry rose, as it did in the previous year. This resulted from the activity rebound in 2010 following the upturn in real estate prices in the last two years. The labor supply restriction is also reflected by the high value of the ratio of vacancies to employed persons in the industry, and the high ratio of vacancies to unemployed builders and construction workers (Table 5.4), as well as by the absorption of 6 percent of total unemployed in that industry in 2010, half of whom were Arabs (Table 5.9).

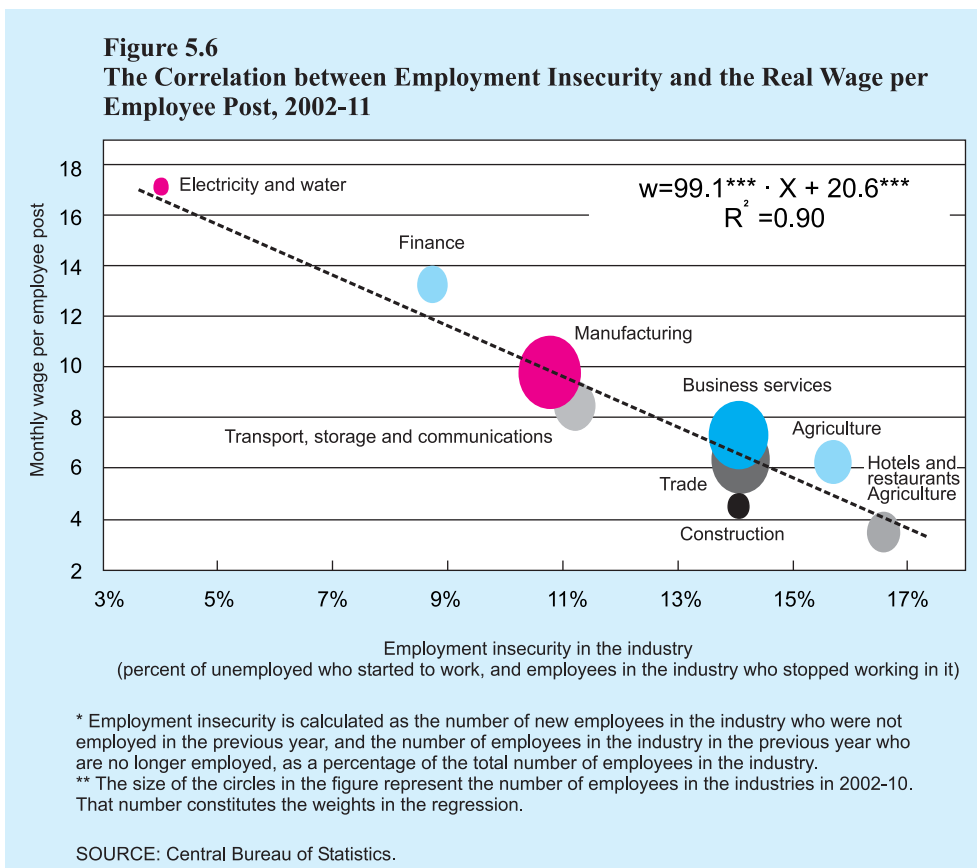
Interesting to note is the substitution between foreign workers, whose employment in the construction industry decreased, and Palestinian workers, whose employment in the industry increased in recent years.⁹ It can be assumed that this trend will cease once the new quota for foreign workers is approved and the agreement for the import of workers from Bulgaria and Rumania is implemented (see the section on labor supply—foreign workers, above). The real wage in the construction industry rose to a moderate extent, particularly for Israelis, due to the entry of low paid manual workers, which led to a change in the ratio of skilled to unskilled workers.

The vibrant activity in the construction industry resulting from the rise in real estate prices was reflected in allied industries as well: Employment and wages in the architecture and engineering industries increased concurrent with the rebound in the construction industry from 2010, and especially in 2011 following the expansion in land marketing. Employment in the real estate intermediation and the equipment rental industry also grew rapidly although this increase began back in 2009 with the onset of the wave of price increases, and continued in 2010–11 as well. The slowness of the construction industry's response to the price increase may have contributed to the particularly rapid increase in the intermediation industry. The freeze apparent in the real estate market at the end of 2011 could therefore lead to reduced employment in the industry.

⁹ The substitutability is also apparent in employers' returns to the National Insurance Institute (Central Bureau of Statistics Statistical Annual 2011, Table 12.36), and not only in National Accounts data, which are based on the assumption of substitutability between foreign workers and Palestinian workers.

In order to highlight the implications for workers' welfare of the industry-specific wage distribution in the business sector, we will point to a fundamental characteristic which until now has been given little attention. This is the negative correlation between the industry-specific level of the monthly wage and workers' occupational insecurity (the proportion of workers who entered the industry after not being employed in the previous year and of those who were employed in it in the previous year and left it and became unemployed in the current year). Wages are low in industries notable for employment insecurity, characterized by poorly educated workers, including those lacking specific human capital, and by a low rate of unionization such as food and accommodation, agriculture, construction and trade. Wages are high in industries where substitutability is low, such as electricity and water, finance and manufacturing, and that are notable for a high rate of unionization and/or skilled workers with specific human capital (Figure 5.6).

Employment insecurity harms the welfare of those employed in low-wage industries.



The negative relationship between occupational insecurity and the real wage has an important implication for workers' welfare: Many workers earning a low monthly wage do not receive a wage during all months of the years. Seventeen percent of

workers in accommodation services reported in Labor Force Surveys that in the first three quarters of 2011 they had worked for less than 11 months, compared with 11–13 percent of workers in construction, business services, manufacturing and trade, 8 percent of workers in finance, and only 5 percent of workers in the electricity and water industry. The annual wage gaps between workers in industries notable for low pay and occupational insecurity, and workers in industries notable for high pay and high occupational security are therefore greater than the gaps indicated by the average monthly wage.

c. The public services industries

Employment in the public services industries (such as education, health and the civil administration) includes workers in the government sector (the central government, the local authorities and public non-profit institutions), in government companies, private non-profit institutions, and also in private companies. A large part of non-governmental activity in these industries is actually financed, even if not directly run, by the government. Accordingly, the activity of these industries, which are affected by collective agreements and by the government's fiscal policy, is analyzed on the basis of the sector-specific affiliation of the employers (the government, non-profit institutions and companies), and is separate from the analysis of employment and wages in business sector industries, which operate mostly on the basis of market forces.

The number of employed persons in the public services rose by 4 percent in 2011 (Figure 5.2), while the number of employee posts in those industries grew by 3.3 percent, which was similar to the rate of increase in recent years with the exception of the recession year 2009. Although the average real wage per employee post rose in these industries, by 0.7 percent in 2011, it has yet to reach its pre-recession level. In the government sector, which includes the central government, the local authorities and public non-profit institutions (such as universities, public colleges, and culture, youth and sports centers), the number of employee posts grew at the lower rate of 1.9 percent, which was less than its rate of increase in previous years—possibly due to the drop in demand for workers in that sector concurrent with the rebound in the business sector. Nevertheless, the real wage in the government sector rose by one percent, mainly due to an increase in public non-profit organizations where employment had increased slowly (Table 5.8).

The wage increase in the government sector resulted from the implementation of the wage agreement that was signed at the end of 2010. The agreement, which covers all government sector employees, prescribes a pay increment of 7.25 percent to be granted in stages at the beginning of each of the years from 2011 to 2013. The agreement also provides for a pay increment of NIS 300–500 for mothers with children up to 5 years of age, and a half a percent increase in pension provisions. Apart from the collective wage agreement in the public sector, the *Oz Letmura* (“Courage to Change”) reform was applied. Under this reform, teachers’ pay was raised by 40–50

Table 5.8
Number of Employee Posts and the Average Wage in the Public Services, 2008-11

	Employee posts					Real wage per employee post				
	'000	Rate of change (%)				NIS/Month	Rate of change (%)			
		2011	2008	2009	2010		2011	2011	2008	2009
Public services, total	980.8	3.4	2.7	3.4	3.5	8,371	-0.6	-2.3	0.7	0.5
General government	532.8	2.7	3.1	2.8	2.1	9,369	0.1	-1.8	1.8	0.7
<i>of which:</i> Central government ^a	202.2	2.0	2.2	3.0	2.1	11,989	0.4	-1.4	2.6	0.2
Local authorities	125.0	3.4	3.5	2.8	3.5	8,163	0.1	-3.6	1.7	0.2
Public nonprofit organizations	205.7	3.1	3.6	2.6	1.3	7,533	0.0	-0.9	0.5	1.8
Companies	244.9	4.0	4.5	4.1	4.6	8,831	-0.4	-4.1	-0.9	1.8
<i>of which:</i> Government corporations ^b	39.1	2.3	3.1	0.6	2.3	13,994	-0.7	1.9	2.6	2.8
Private companies	202.7	4.1	4.8	4.4	4.9	7,879	-1.5	-7.2	-1.6	1.9
<i>of which:</i> Health and welfare	127.5	4.1	9.5	7.6	4.2	4,823	0.5	-2.0	-2.6	1.3
Households	26.1	6.0	-6.2	5.2	7.3	3,142	0.1	0.4	-4.2	1.3
Private nonprofit organizations	176.8	4.4	0.6	4.3	6.0	5,477	-1.0	-1.2	-0.3	-1.4

^a Including National Insurance Institute and other administrative sources.

^b Most corporations classified as government corporations are government hospitals.

SOURCE: Central Bureau of Statistics

percent and the working week was extended by 16 hours. The estimated cost of the reform amounts to NIS 2.5 billion a year.

In the public health services, a collective agreement was signed between the Ministry of Finance and the Israeli Medical Association (IMA) following a series of strikes which lasted for five months. The agreement prescribes a uniform 23.5 percent wage increment for all physicians, to be granted gradually over eight years. An additional wage increment was determined for medical specialist interns in certain fields where there is a shortage of physicians, for physicians working in peripheral areas of the country and for physicians who are appointed as service managers. In addition, budgeting was provided for an additional 1,000 specialist job slots, for overtime pay and for fringe benefits.

The medical specialist interns refused to accept the agreement that was signed with the IMA even though it is their representative body. Following a protracted dispute lasting another four months, an additional collective agreement was signed with them which enhanced their work conditions. It should be noted that this additional agreement weakens the power of the employees' committees against minority groups of workers whom they represent but work under other conditions (such as specialist interns in the IMA and newer employees employed under second-tier pay plans in government companies and governmental bodies). This is likely to set a precedent for the manner in which trade unions are organized and to be reflected in the discussions of new wage agreements.

The social workers went on strike in March 2011. This strike lasted for a month. These workers' pay demands followed a 3.5 percent erosion of the real wage between

The physicians and the specialists' strikes and the results of these strikes may be indicative of a change in the manner in which workers in the economy are unionized.

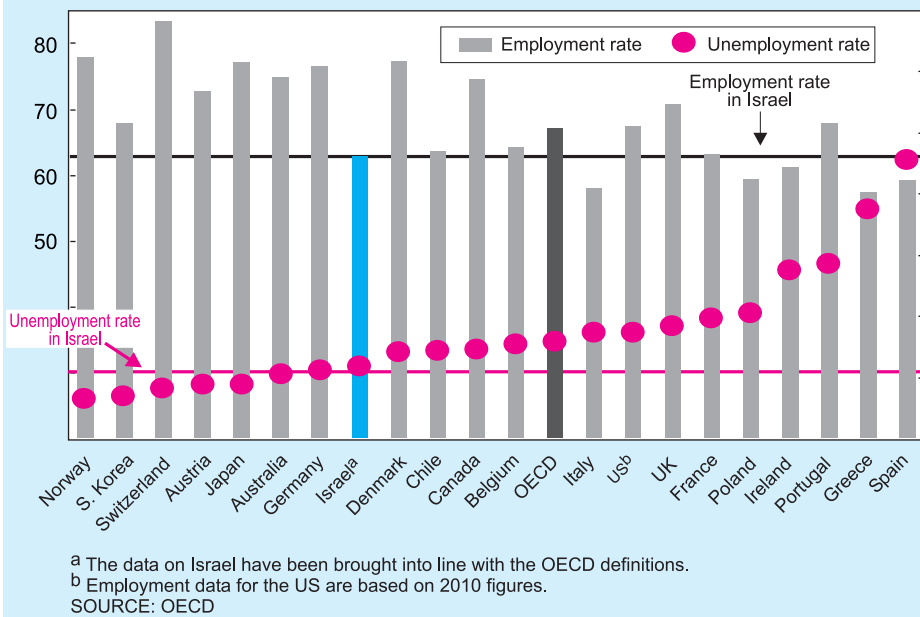
2008 and 2011 in the welfare and nursing services industry, which was very low from the outset. This erosion occurred concurrently with a rapid 18 percent increase in the number of persons employed in the industry, and the strike presumably resulted from the entry of new, low-paid workers in part-time posts. At the end of the strike, a new collective agreement was signed with the social workers, which also applies to those employed at non-profit organizations that provide services which are financed by the government. The agreement includes a graded NIS 1,000 increment to monthly salaries at all pay levels which will be paid in four stages, and increased provision for pension. These pay increases are reflected by the rise in the average wage in health and welfare services in the government sector, and especially in governmental non-profit organizations.

5. UNEMPLOYMENT

The unemployment rate in the economy continued to decline in the first half of 2011, and reached a level of 5.6 percent. The decline in the unemployment rate ceased in the second half of the year, and the rate remained at a level of around 5.5 percent. Unemployment rates on these levels are the lowest in Israel for the past three decades. The fall in unemployment during the last two years resulted from the exit from recession in the most recent business cycle. It can however be assumed that the low unemployment rate over the latest business cycle derived from reduced friction in the labor market, which increased the efficiency of the market (Box 5.1). The decline in the unemployment rate reflects a decrease of 25,000 in the number of unemployed to 180,000. This decrease resulted from the increase in the employment rate and from stability in the labor force participation rate. The fall in the unemployment rate derived mainly from the decline in the unemployment rate among men, which is characteristic of the exit from a recession. This rate stabilized around a level similar to the unemployment rate among women, which was lower during the recession. However, the rapid decline in the unemployment rate ended in the second half of 2011 concurrent with the downturn in economic activity and the slacker demand for labor.

The level of unemployment in Israel is also low compared with western countries such as the USA and the eurozone countries, and similar to that of such western countries as Germany and Australia (Figure 5.7). The low unemployment rate resulted from the economic prosperity in Israel in 2010 and the first half of 2011, and from the reduced friction in the labor market. Nevertheless, Israel has a structural problem, which is reflected by a low rate of employment relative to the OECD countries. The low labor force participation rates in Israel must be increased in order to increase the country's low employment rate. Since focusing on the unemployment rate as a main index of the robustness of the Israeli labor market could be misleading, reference should be made to that rate from the aspect of the structural problems in the labor market. The government's employment targets would appear to be based on an understanding of this fact.

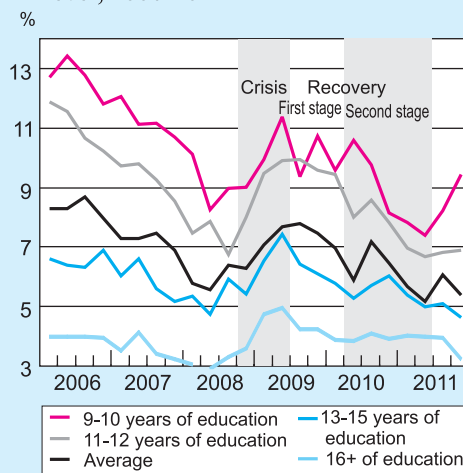
Figure 5.7
Rates of Unemployment and Employment in Selected Countries, 2002-11



The unemployment rate in Israel is low by international standards despite the low employment rate, which reflects structural problems in the economy.

The decline in the unemployment rate in the first half of the year was reflected mainly by a fall in unemployment among those lacking a higher education, and led to a contraction of the unemployment gaps between populations at different levels of education. This process is the second stage in the economy's recovery from the recession after the first stage of the exit from it (mid-2009 to mid-2010), when the unemployment rate fell among those with higher education while the rate among those without higher education remained high. A similar process was apparent during the recession of the early-mid 2000s: Then too, the unemployment rate fell among those with higher education before it declined among those without higher education. The fall in unemployment among those lacking a higher education is attributed to the growth in employment in non-human-capital-intensive industries (see the section on business sector employment). However, the downturn

Figure 5.8
Unemployment Rate, by Educational Level, 2006-10



The decline in the unemployment rate in the first half of the year was reflected mainly by a fall in unemployment among those lacking a higher education.

in the economy in the second half of the year was reflected by an end to the decline in the general unemployment rate and by an increase in the rate among those with 9–10 years of education.

The Labor Force Surveys make it possible to shed light on the dynamics of unemployment via an examination of the situation in 2011 of those who were unemployed in 2010, and an examination of the situation in 2010 of those who were unemployed in 2011. These comparisons show that half of those unemployed in 2010 remained unemployed in 2011, or stopped looking for work, and half of those unemployed in 2011 were unemployed in the previous year or were outside the labor force. This population, representing the hard core unemployment rate, is notable for a low level of education compared with the unemployed who had lost their jobs or were re-employed after a year.

Half of the unemployed come from a situation of employment and return to it. This population consists mostly of those with a post-high-school education. Among the principal industries, the construction industry, in which activity is at a peak, was notable for the large number of persons which it absorbed into employment, concurrent with a low level of terminations of employment in the industry. Also notable was the substitutability in the trade industry, which has been dismissing skilled workers with

Table 5.9
The Shift^a between Unemployment, Employment and Non-Participation in the Working Age Labor Force, 2010 and 2011

	Percent	Years of education	Age	of which: Arabs (%)	Time spent job hunting (weeks)
Status in 2011			Unemployed in 2010		
Total	100.0	13.0	40.9	18.4	37.2
Stayed unemployed	20.5	12.8	41.6	13.7	43.1
Left labor force	27.8	11.6	43.6	33.3	52.5
Found employment	51.7	13.7	39.1	12.2	26.7
<i>of which:</i> in manufacturing	6.5	13.7	38.5	5.1	20.7
in construction	5.9	11.2	41.4	49.6	53.5
in trade	7.3	12.8	39.9	8.7	2.02
in business services	10.5	14.3	39.3	7.6	19.0
Status in 2010			Unemployed in 2011		
Total	100.0	13.1	40.5	15.6	35.1
Unemployed	22.3	12.8	41.6	13.7	49.3
Were out of the labor force	29.6	12.8	40.7	18.8	46.8
Left employment	48.0	13.5	39.9	14.6	21.2
<i>of which:</i> left manufacturing	7.5	12.0	41.8	26.9	17.8
left construction	2.7	11.9	43.3	22.3	29.4
left trade	8.7	12.1	38.0	21.6	20.1
left business services	10.2	15.2	39.4	5.0	25.0

^a Observations of individuals in the two years were matched by quarter because panel weights are unavailable, the estimate was performed using the weights of the cross-sectional surveys.

SOURCE: Based on Labour Force Surveys.

an average of 15.2 years of education, and absorbing workers with a lower level of education (an average of 14.3 years of education).

The dynamics of unemployment are indicative of the employment characteristics of the Arab population: The Arabs' share among those who entered employment is lower than their share among those who left employment. For example, Arabs constituted 27 percent of the unemployed who left the manufacturing industry compared with only 5 percent of the unemployed who were absorbed into that industry. The corresponding rates in the trade industry were 22 percent of those leaving and 9 percent of those absorbed. This situation is a sign of employment insecurity in the Arab population. An exception was the construction industry where there was a shortage of manual workers, and half of the unemployed who were absorbed into the industry were Arabs. The employment insecurity of Arabs and the resulting fact that employment is less worthwhile for them are apparent from the fact that a third of the unemployed in 2010 who stopped looking for work in 2011 were Arabs.

The employment insecurity among Arabs is reflected in their large share among those leaving employment and the labor force.

6. GOVERNMENT POLICY AND INSTITUTIONAL CHANGES

A number of major legislative amendments relating to employment were introduced in the second half of 2011. These amendments were mainly intended to protect weak workers, such as contract workers and low-paid employees. However, the impact of the labor laws, including the new laws, is dependent on the effectiveness of enforcement. As an example, the ratio of workers to Ministry of Labor inspectors in Israel amounted to one inspector per 40,000 workers in 2009, including part-time inspectors (students). This level is lower than the ratio recommended by the ILO for developed countries, which is one inspector for every 10,000 workers, and one inspector for every 20,000 workers in other countries.¹⁰ The government intends to extend the enforcement network, as recommended in the report of the Committee for Economic and Social Change and as agreed by the Histradut Labor Federation in February 2012.

A legislative amendment facilitating the increased enforcement of the labor laws was approved. The main innovation in the amendment was authorization to open administrative and not only legal proceedings in response to a violation of the labor laws, even when this is on the basis of administrative evidence alone. This amendment can therefore shorten the time necessary to take proceedings against exploitative employers. In addition, administrative and criminal liability was imposed on those ordering services from contract-worker employers who violate labor laws, including managers of public authorities and corporations, as well on the contractor company itself. The new law will go into effect in mid-2012, and its application is expected to have major implications for the enforcement of the wage laws as a whole and with

¹⁰ OECD Review of Labour Market and Social Policies (2010). Pp. 94-97. Sixteen job slots have been allocated for the Labor Law Enforcement Unit for the purpose of supervising those employing 220,000 non-Israeli workers, who are especially vulnerable. By the end of 2011, only 9 of these job slots had been manned.

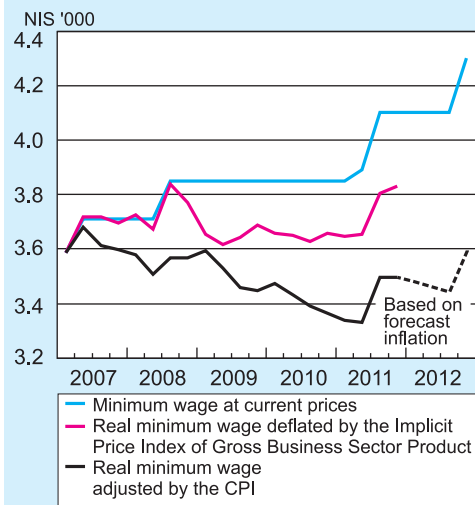
respect to contract workers in particular and as a result, for nursing, cleaning and security services. As part of the effort to deal with the exploitative employment of contract workers, an additional law was enacted which stipulates that the very act of contractual association with a manpower contractor lacking a license constitutes a criminal offense. Other labor legislation prescribes civil penalties for failing to inform an employee of the terms of his employment and in the event of a violation of the law, shifts the burden of proof from the employee to the employer. These acts of legislation together with greatly increased enforcement should lead to stricter enforcement over employers violating the law and over organizations that order services from contract manpower companies, and should thereby protect weak workers.¹¹

Another measure that is intended to protect vulnerable workers is the increase in the national minimum wage. The monthly minimum wage was raised twice during 2011, from NIS 3,850 to NIS 4,100, and a further increase to NIS 4,300 in October 2012 is scheduled. Due to the rapid rise in consumer prices, the increase in the minimum wage in mid-2011 only partly compensated for the erosion in its real value relative to that at the beginning of 2007. Moreover, and on the basis of inflation expectations, only at the end of 2012 will the real level of the minimum wage revert to that at the beginning of 2007. Because of the relatively slow increase in producer prices (the business sector product deflator), however, the minimum wage did not erode from the employers' aspect. Accordingly, the rise in the minimum wage in mid-2011 could have an adverse effect on employment, especially in tradable industries. It should nevertheless be remembered that empirical evidence of the negative effect of the minimum wage on employment in other economies is limited.¹²

The minimum wage was raised in the construction industry as well. The minimum wage in that industry was set at NIS 4,350 in an Expansion Order issued in July 2010, and was increased to NIS 5,100 at the beginning of 2012 in order to attract workers to the industry (see the discussion on demand for labor). The new minimum wage applies to both Israeli workers and

The minimum wage, which was increase this year, is expected to get to its 2007 real level only after another increase in late 2012.

Figure 5.9
The Minimum Wage, at Current Prices, Deflated by the Implicit Price Index of Gross Business Sector Product, and Adjusted by the CPI, 2007-12



SOURCE: Based on Ministry of Industry, Trade and Labor and Central Bureau of Statistics data.

¹¹ A detailed description of labor legislation in 2011 can be found on the Ministry of Industry, Trade and Labor internet site.

¹² T. Arindrajit Dube, William Lester and Michael Reich, "Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties", *Review of Economics and Statistics* 2010 92:4, 945-964.

non-Israeli workers (Palestinian workers and foreign workers). At this stage, it is not possible to determine whether the increase in the average wage in the construction industry to NIS 6,100 (Table 5.7) resulted from the rise in the minimum wage in that industry, or whether building contractors' agreement to raise this minimum wage derived from the increase in wages in the industry, implying that the previous minimum wage did not affect actual wages.

While the previously mentioned government policy is intended to enhance the working conditions of those with low income-earning potential, the policy of outsourcing services for the government, known as the employment of contract workers, is intended to increase administrative elasticity and reduce the costs of employing these workers. Without effective enforcement of the labor laws, this pattern of employment could harm the welfare of these contract workers. At the beginning of 2012, the employment of contract workers triggered a labor relations crisis in the economy.

According to Central Bureau of Statistics estimates, which are based in a limited definition contract workers,¹³ the number of those employed via manpower companies amounted to 33,000 in 2010, and their average age was 33 years. Of these workers, 17,000 were women and 9,000 had immigrated to Israel in the 1990s. Sixty percent of these manpower company employees had worked for over 10 months in the past year, but 28 percent had worked for less than six months during that period. It should be noted that in public debate, the term contract workers covers all those who are not directly employed by the organizations receiving the services which they provide, such as cleaning workers and security guards at public companies and institutions, teachers employed by educational foundations, clerical workers, and even high-tech workers who are employed at a variety of institutions and companies via intermediation companies.¹⁴

A general strike in the economy started at the beginning of 2012 in protest at the employment of contract workers. At the end of the strike, the Histadrut signed an agreement with the Ministry of Finance. This agreement calls for a substantial increase in the minimum wage of contract workers and the conferral of accompanying social benefits for these workers—most notably provisions for pension and for a training\study fund. The agreement also stipulated a large increase in the number of labor inspectors and the transfer of a limited number of workers to direct employment. Apart from these measures, a nine-month limit was placed on the length of the contract employment of “shoulder-to-shoulder” workers, whose activity is the same as those working alongside them in direct employment.

¹³ The limited definition of manpower company employees includes employees who reported in Labor Force Surveys that they were paid by such companies. Workers at specialist manpower companies such as high-tech workers who are employed indirectly by software houses and teachers employed via foundations, were not included at all under this definition.

¹⁴ According to Histadrut estimates, the number of contract workers under the broad definition exceeds 250 thousand.

Box: 5.3: Cost of childcare and policies for supporting working families with children aged 0–4¹

Expenditure on childcare facilities for young children² accounts for a sizeable part of the budget of families with children, averaging a quarter of the net income of a working mother. Such high expenses weaken a mother's incentive to return to work after giving birth, because they reduce the net incremental income which the household receives from her employment. The effect is stronger among low-income families, where the proportion of this expenditure in the mother's pay is higher. The budgeting of childcare facilities (day care centers) in which the cost is subsidized for eligible working families has increased in recent years. However, due to the shortage of subsidized facilities, most working families with young children do not benefit from this form of support. The high cost of childcare facilities was a prominent issue in the social protest of last summer, as were the measures which the government decided to adopt on the basis of the recommendations of the Committee for Economic and Social Change.

Review of current policy for supporting working families with children

Israel has 500,000 families with children aged 0–4, and two thirds of them pay for childcare facilities. The average family expenditure in this case is NIS 1,600 a month, and is higher, at NIS 1,900 a month, for families with a working mother.³ These costs are after receipt of the subsidy that is granted to families who are eligible to use childcare facilities supervised by the Ministry of Industry, Trade and Labor, which budgets them. Subsidizing of public childcare facilities is the principal form of support for working families with children in many countries. In a number of developed countries, the subsidy for these facilities amounts to 68 percent of the monthly cost per child, and parents only have to pay the remainder.⁴ In Israel the average subsidy for all children in subsidized facilities amounts to 44 percent of the monthly cost. A positive correlation was found between the proportion of a country's children in public facilities and the rate of employment among mothers (Figure 1).

Israel is located on the trend line: The participation of children up to the age of 3 in public childcare facilities amounts to 23 percent of all children at that

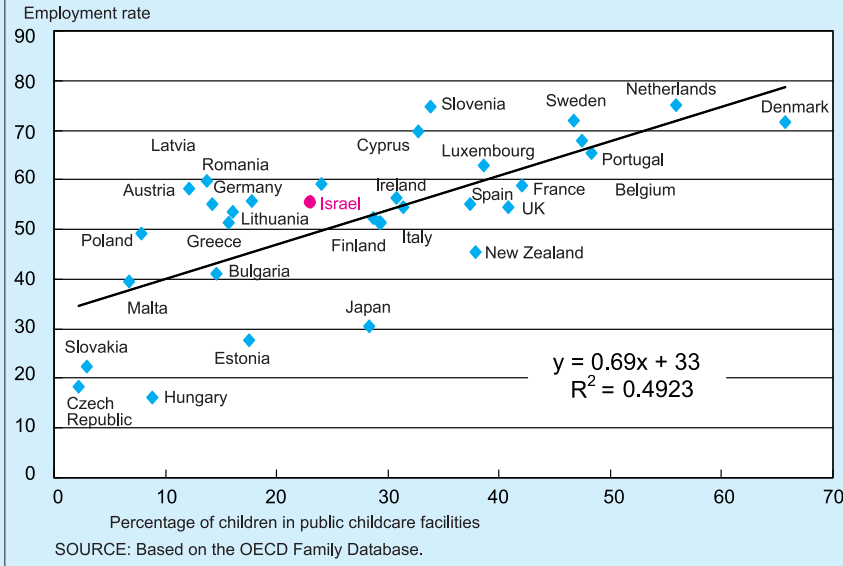
¹ Based on Bank of Israel research by Ella Shachar, which will be published shortly.

² The reference here and thereafter is to children aged 0–4.

³ Household Expenses Survey, 2007–2009 average, 2011 prices.

⁴ Average for Italy, Sweden, Finland, Belgium, Denmark, Germany, Holland, Canada and the US. See "Subsidizing childcare: A step to encourage going out to work", Bank of Israel, Recent Economic Developments 119 <http://www.boi.gov.il/develeng/develeng119/develeng.pdf>, and E. Pichtelberg-Bematz (2006), "Government assistance for financing infant childcare services—What other countries do", Ministry of Trade and Industry, Research and Economics Administration (Hebrew) <http://www.moital.gov.il/NR/exeres/EF4C970C2797-4031-B373-DC38378A65FE.htm>.

Figure 1
The Correlation between the Proportion of Children up to Three Years Old in Public Childcare Facilities and the Rate of Employment of Mothers of Children up to Three Years Old



age. An increase in this proportion should increase the employment rate among mothers, with the goal of reaching the employment level of such developed countries as Sweden, Holland and Denmark. 55,000 working mothers currently benefit from subsidization, while the number of mothers actually eligible for the subsidy is estimated at 110,000.⁵ Thus, half of them do not exercise their right to the benefit, mainly due to a shortage of places at subsidized facilities. An international comparison serves to highlight the low level of subsidization. In Israel, public spending on subsidized facilities amounts to 0.1 percent of GDP compared with an average of 0.23 percent in the OECD countries. This is without taking into account the fact that Israel has a much higher birthrate. If the data is adjusted for the differences in the general fertility rate, the gap is nearly twice as large.⁶

⁵ The estimate is calculated on the basis of a salaried employee's file, which contains the data required for calculating the eligibility for registering at supervised childcare facilities and for calculating the eligibility for subsidization, such as income data, parents' employment, family composition and children's age.

⁶ Were the general fertility rate in Israel the same as in the OECD countries, the ratio of spending to GDP in Israel would be not 0.1 percent, but 0.06 percent as compared to 0.23 percent in the OECD countries.

The number of places in supervised childcare facilities in recent years amounted to 85,000⁷—a quarter of the potential demand. (The number of children in working families that conform to the employment test; see Footnote 5). The shortage in the supply of subsidized facilities has been known for years, and in the past numerous efforts were made to remedy this situation. In 2009 a decision⁸ was taken to allocate NIS 88 million for the construction of new childcare facilities. At the end of 2011, the allocation was increased by another NIS 100 million and its budgetary implementation was approved. By financing the construction of new facilities, the allocation is intended to increase the supply by 6 percent during the next three and a half years.⁹

The subsidized daycare system has undergone major changes during recent years. Under the proposed Supervision of Daycare Establishments for Toddlers Law, supervision of establishments would be expanded to private nurseries. For this purpose, the law will require nursery schools to adhere to certain standards, which are likely to increase the costs of running private nurseries by 40 percent.¹⁰ Part of the expenditure will be financed by the government. However, without full budgeting of the additional costs, the burden will fall on the parents, or will lead to a decrease in the number of nursery schools due to the closure of those that cannot afford the cost of applying the standards required. This is clear from the experience of raising the standards for nursery schools in the US, which led to an increase in the cost of running them and a decrease in the number of those directed at weak populations where prices were low.¹¹

In order to increase the number of families benefitting from price subsidy in a situation of supply shortage at subsidized facilities, the priority terms for the

⁷ The estimate does not include children in the care of welfare offices, who are eligible under criteria that are not connected to the parents' employment. Twenty percent of mothers whose children are registered in subsidized facilities have 2 children in these facilities. The number of mothers benefiting from subsidized childcare services therefore amounts to 70,000, of whom 55,000 benefit from subsidization.

⁸ Government Resolution no. 603 of July 19, 2007 "Concerning the encouragement of the employment of mothers of children age 0–5 and regulatory coverage of daycare centers and other plans".

⁹ Involved are an additional 5,000 places in subsidized childcare facilities, which will increase the number of working families whose children are cared for at such facilities to 75 thousand.

¹⁰ For example: The standards for a nursery school building (installation of fire extinguishing infrastructure and reinforced security rooms, the ratio of the area per child in the building and in the yard, and the play facilities within the building and in the yard) and for the care of the children (age mix in the groups of children, ratio of the number of children per caregiver, training of the educational staff). Cost assessment of the Organization of Private Nursery Schools in Israel.

¹¹ V. Hots and M. Xiao (2011). "The Impact of Regulations on the Supply and Quality of Care of 11 Child Care Markets", *American Economic Review*, 101, 1775-1805.

acceptance of children at these facilities were changed.¹² Preference was given to families with a low level of income, implying a large increase in the participation of subsidized children from 75 percent of all children in the facilities before the change to 83–85 percent in 2011. This change conforms to studies in the sphere of education, showing that attendance at educational facilities for infants favorably affects the development of children from underprivileged families.¹³ Due however to the shortage of places in Israel, attendance at the subsidized facilities almost exclusively by children from weak strata is reducing the extent of social integration by isolating children from these strata.

The low level of utilization by working families with young children of the benefits offered in this respect is reflected by an international comparison of expenditure on childcare facilities in terms of average wage. The comparison takes into account all the benefits involved—direct subsidy and tax benefits (Figure 2)—and is based on representative rather than average family data, in order to neutralize differences in the birth rate, which in Israel is higher than in the OECD countries.¹⁴ The cost of childcare in Israel was calculated in accordance with the rate of subsidy to which the representative family is eligible, according to per-capita level of income. The comparison is indicative of the high cost of childcare facilities in Israel compared with those in the majority of OECD countries, even for families who benefit from subsidization.

It should be noted that under the Law for Economic and Social Change, which was enacted as a result of the social protest, implementation of the Free Education Law for children aged 3–4 was approved with effect from the 2012/2013 school year. This measure will reduce the burden of payments on the parents. However, it will not affect expenditure on care for children below that age, most of whom are looked after in private facilities, the costs of which are very high.

Elasticity of mothers' employment to the cost of childcare facilities

The high expenditure on childcare facilities adversely affects mothers' incentive to work. This is also apparent from the literature on the subject. The most common result of studies that examine the extent of the effect of the costs involved, which is measured on the basis of supply elasticity relative to the cost

¹² Because of the supply shortage of subsidized childcare facilities, acceptance committees for childcare centers were established. These committees decide whether to accept children on the basis of priority terms. Preference is given to single-parent families, according to such criteria as the extent of the mother's employment and income level.

¹³ OECD (2007), *Babies and Bosses: Reconciling Work and Family Life*, OECD.

¹⁴ A representative family is a family with two employed persons who together earn 167 percent of the average wage in the country (on the assumption that the main breadwinner earns at the level of the average wage and the second breadwinner earns two thirds of the average wage), and with two children aged 2 and 3 who are cared for in full-time child educational facilities (40 hours a week).

of care, is between -0.3 and -0.4. This implies that a one percent decrease in expenditure on a childcare option (nursery school/caregiver) will increase the chance of the mother working by 0.3–0.4 percent.¹⁵ These findings support the provision of assistance to families with children because of its effectiveness in increasing the incentive to work. A study with respect to Israel has examined the relationship between the employment of Arab women and the application of the Free Education Law for Children Aged 3–4.¹⁶ It was found that expansion of a free pre-compulsory kindergarten system led to an 8 percentage point increase in the employment of Arab women.¹⁷ With respect to Jewish women, it was found that the cost of childcare facilities for children to the age of 4 has the effect of reducing the employment of mothers, and the elasticity was estimated at -0.14 (standard deviation—0.003). This implies that subsidizing the payment for childcare facilities by one percent will increase the chance of a mother working by 0.14 percent.¹⁸ Studies have also found that uneducated, immigrant and ultra-Orthodox women are more affected by childcare facility costs (elasticities of -0.16, -0.16 and -0.17 respectively), and that the availability of places at subsidized facilities has a significant effect in reducing family expenditure on childcare.¹⁹ The elasticity in Israel is low compared with such countries as the US and Canada, and is similar to that in Norway and Australia. The elasticity is high relative to the sensitivity of employment to other factors, such as changes in pay, which is estimated at -0.07.²⁰ When the elasticity of expenditure in shekels is calculated, a larger gap is obtained between the sensitivity to changes in the cost of childcare and the (lower) sensitivity to earnings.²¹ The higher elasticity of

¹⁵ P. Anderson and P. Levine (1999). “Child Care and Mothers’ Employment Decisions”, NBER, Cambridge, Working Paper No. 7058, March; and X. Gong, R. Breunig, A. King (2010). “How Responsive is Female Labour Supply to Child Care .Cost: New Australian Estimates.”, IZA DP, 51

¹⁶ Shluser, E. (2006), “The effect of providing free pre-compulsory education on the labor supply of Arab mothers: Findings from a natural trial”, *Economic Quarterly* 53/3, pp. 517–553 (Hebrew).

¹⁷ The process involved differs from cost subsidization because in this study the growth in employment derived from two reasons: the full subsidization of childcare facilities, and the opening of new facilities in Arab settlements.

¹⁸ Shahar, E. (2012), “The cost of childcare for infants and its effect on the employment of women” Bank of Israel, discussion paper series, not yet published (Hebrew).

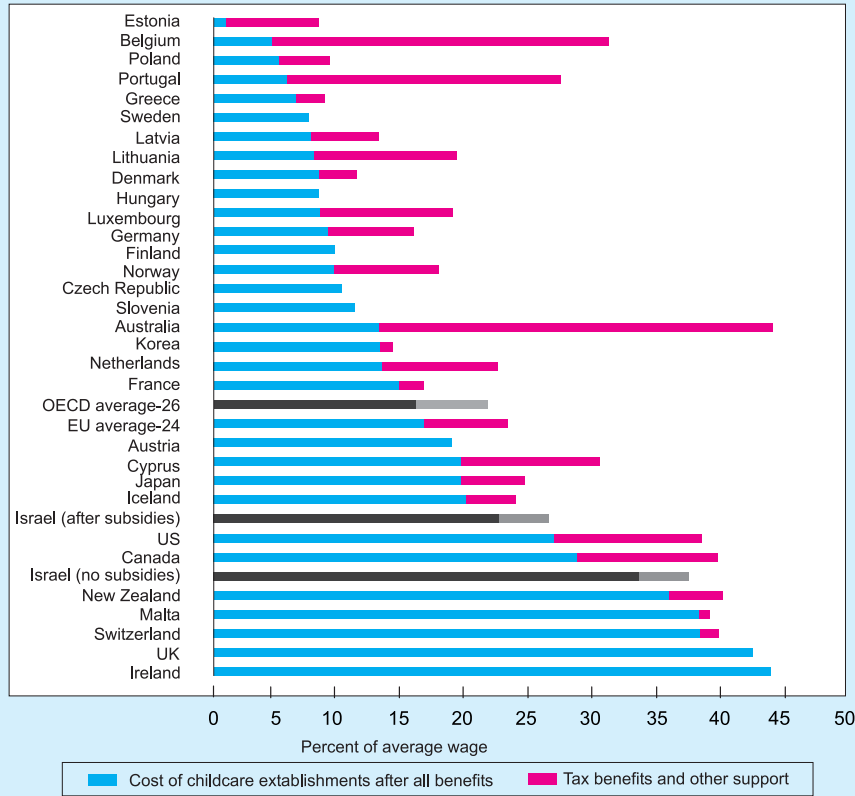
¹⁹ In the study the availability index for subsidized facilities was calculated as the ratio between the number of places in these facilities in an area, to the number of working mothers living in that area who eligible to register their children at the facilities.

²⁰ Brender, E. and Strawczynski, M. (2006), “Features of the desired earned income tax credit system in Israel in view of the labor supply characteristics and the extent of poverty among those with low income-earning potential”, *Economics Quarterly* 53/3, pp. 407–439 (Hebrew).

²¹ The calculation was necessary because of the variance levels of wage and expense on childcare facilities. According to the calculation, a shekel of expenditure on the cost of childcare reduces the chance of employment by 0.009, and a shekel decrease in wage reduces this change by 0.002.

the employment of mothers of infants can be attributed to the high proportion of subsidy to their wage relative to that among other salaried employees,²² because their salary is lower.

Figure 2
Payment for Childcare Net of Tax Benefits and Other Support, OECD^a
 (Percentage of average wage, 2004)



^a The comparison refers to a representative family with two wage-earners, whose combined salary is 167 percent of the average salary, after taxes, and with children aged 2 and 3 who participate in group establishments which operate at full capacity.
 Source: OECD countries figures, Israel—Bank of Israel calculations.

The desired policy

The employment rate of all women in the relevant age group (25–45) amounts to 68 percent while the rate among mothers of children aged 0–4 is 63 percent, compared with 72 percent among other women in that age group. Based on

²² The elasticity gap could also be attributed to differences in the population for which the elasticities were calculated. Mothers with children aged 0–4 are a sub-group in the population studied by Brender and Strawczynski, which includes parents with children up to the age of 18 (the population relevant to the earned income tax credit program).

the estimate of the employment elasticity of mothers of infants which was calculated for Israel (-0.14), full subsidization of childcare expenditure will expand employment for such women up to 71 percent. Provision of support at the level of half of family expenditure on childcare facilities will increase the employment rate of women with children aged 0–4 from the present rate of 63 percent to 67 percent, at an overall cost of NIS 2.9 billion. This will result in the labor market participation of 21,700 women at an annual cost of NIS 135,000 per newly employed woman. This cost is considerable, but less than the high cost of employment by means of other support programs.²³ Focusing subsidization on families with low income-earning ability and low employment rates will increase the effectiveness of this policy instrument. Apart from increasing the employment rate, the subsidies will favorably affect additional aspects (which were not estimated in the review), for example, increasing the number of work hours,²⁴ improving poverty indices and reducing social gaps in education (providing that educational contents of childcare centers are subject to supervision). The high cost of subsidies is justified from a broader perspective as well: The employment of mothers will contribute to the development of a behavioral model for their children, and thereby increase the children's chances of integrating in the labor market in the future.

²³ Brender and Strawczynski (see footnote 19) found that the cost of bringing a new employed person into the labor market by means of direct subsidization of earnings is estimated at NIS 214,000 (2002 prices).

²⁴ Brender and Gallo found that the elasticity of work hours relative to mothers' earnings is greater than that of childless women: Brender, E, and Gallo, L. (2007). "The effect on work hours of changes in earnings, GDP and workers' demographic characteristics". Bank of Israel Research Department, discussion paper series no. 2007.10 (Hebrew).