

## CHAPTER IV

# WAGES AND EMPLOYMENT

### 1. MAIN DEVELOPMENTS

The economic slowdown in 1980 was reflected in the labor market by a standstill in employment and the creation of overt unemployment, which reached its highest level during the past decade. The labor input sagged a bit this year, after a 4 percent increase in 1979, and unemployment rose from a 2.9 percent annual average rate in 1979 to 4.8 percent. These developments took place against the background of the cyclical pattern characteristic of recent years: after the rebounding of economic activity in 1977 and a high employment level in 1978 and the beginning of 1979, the trend changed and at the end of the year there was a sharp turnabout, with employment falling off and overt unemployment rising. In the course of 1980 employment slowly picked up in the business sector, but not enough to pull the labor market out of its slump.

These developments in the year reviewed can be partly attributed to the restrictive effect of the government's fiscal and monetary policy measures, but they also reflected long-term trends which have pushed up real labor costs in the business sector,<sup>1</sup> thereby apparently affecting the demand for labor. Since the mid-1970s real wages in this sector have risen without a corresponding growth in labor productivity, and this has apparently increased employers' labor costs.

Besides the excessive increases in real wages, labor costs are affected by changes in the terms of trade, the taxing of the product and labor, and the volume of subsidies. The deterioration in the terms of trade and the hiking of taxes on the product drive up labor costs and depress the value of the product to employers; a heavier subsidization has the opposite effect, i.e. it lowers labor costs.

The stiffening of the employers' labor tax burden has a very strong impact, for it directly raises the relative price of the labor input. The combination of these factors has increased labor costs in several of the last few years and apparently led to disequilibrium in the labor market: the demand for workers

<sup>1</sup> Expenditure on labor per unit of gross domestic product of the business sector, at factor cost.

**Table IV-1**  
**POPULATION, EMPLOYMENT, WAGES, AND LABOR COSTS—PRINCIPAL**  
**DATA, 1976-80**

(Percent annual increase)

	1976	1977	1978	1979	1980
Working-age population	1.9	2.1	2.0	2.5	2.5
Civilian labor force	1.9	3.2	4.2	1.6	3.2
Israeli employed	1.3	2.9	4.6	2.3	1.1
Total manhours of Israelis	0.9	0.7	4.9	4.1	-1.1
Workers from administered areas	-2.3	-2.9	8.4	9.1	-3.0
Total employed in Israel	1.1	2.6	4.7	2.7	0.8
Total manhours worked in Israel	0.7	0.6	5.1	4.4	-1.5
Real wages per employee post in Israel <sup>a</sup>	1.4	10.6	1.5	9.5	-3.3
Real wages per employee per unit of business sector product <sup>a,b</sup>	2.3	7.0	1.4	1.5	1.5
Real unit labor costs in business sector					
A <sup>c</sup>	12.3	0.0	-2.2	5.6	-2.2
B <sup>d</sup>	7.5	-0.2	1.2	0.6	2.8
Unemployment rate (as a percent of civilian labor force—absolute figures)	3.6	3.9	3.6	2.9	4.8

<sup>a</sup> In terms of purchasing power, deflated by the consumer price index.

<sup>b</sup> Hourly wages less the gross product per hour worked in the business sector. The product estimates are according to sectoral origin.

<sup>c</sup> Deflated by the factor prices of the gross domestic product of the business sector. The product estimates are according to sectoral origin, and exclude the subsidy element in government loans to the business sector.

<sup>d</sup> Real costs, with the product estimates including the subsidy element in government loans to the business sector.

SOURCE: Central Bureau of Statistics and Bank of Israel calculations.

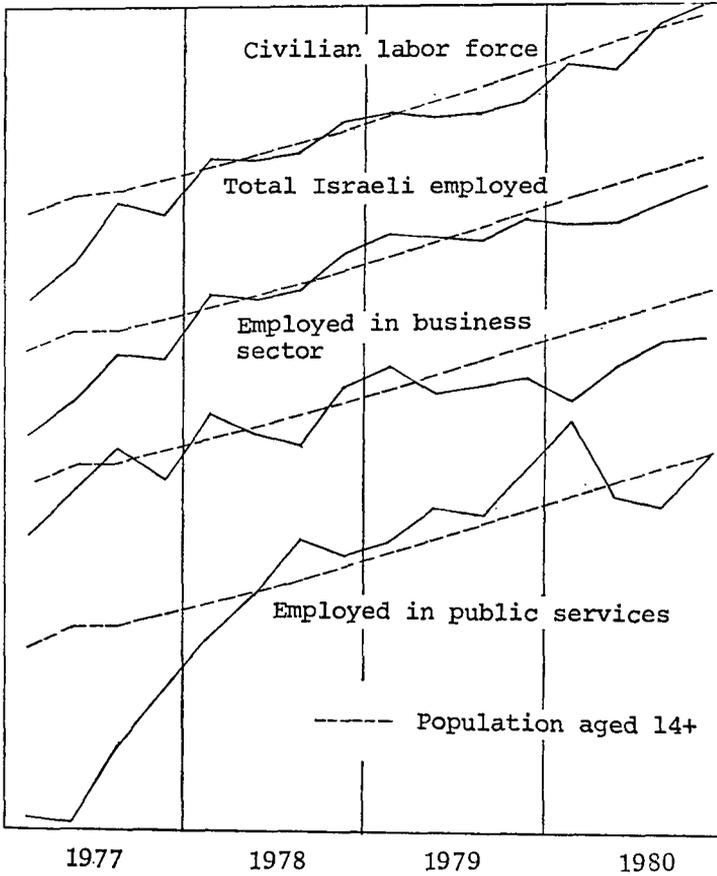
is shrinking because of mounting labor costs, while supply remains unchanged in the absence of real wage restraint; one possible outcome is the growth of unemployment.

In this connection it should be noted that in the mid-1970s labor costs soared, severely dampening business sector activity. However, this did not result in any noticeable growth of unemployment in the economy, in the main apparently because of the rapid expansion of public services, which absorbed nearly all the labor force increment. In 1980 the overexpansion of public services was arrested, but the policy of fiscal restraint did not include, along with a cut in expenditures, any easing of the unduly heavy taxes on labor. Such a step would have reduced labor costs and increased demand for workers in the business sector.

Figure IV-1

**ISRAEL'S POPULATION AGED 14+, CIVILIAN LABOR FORCE, AND EMPLOYED BY SECTOR, 1977-80**

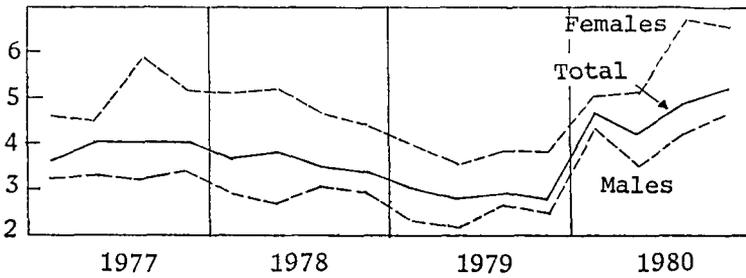
(Quarterly seasonally adjusted data; logarithmic profiles)



**UNEMPLOYMENT RATE, 1977-80**

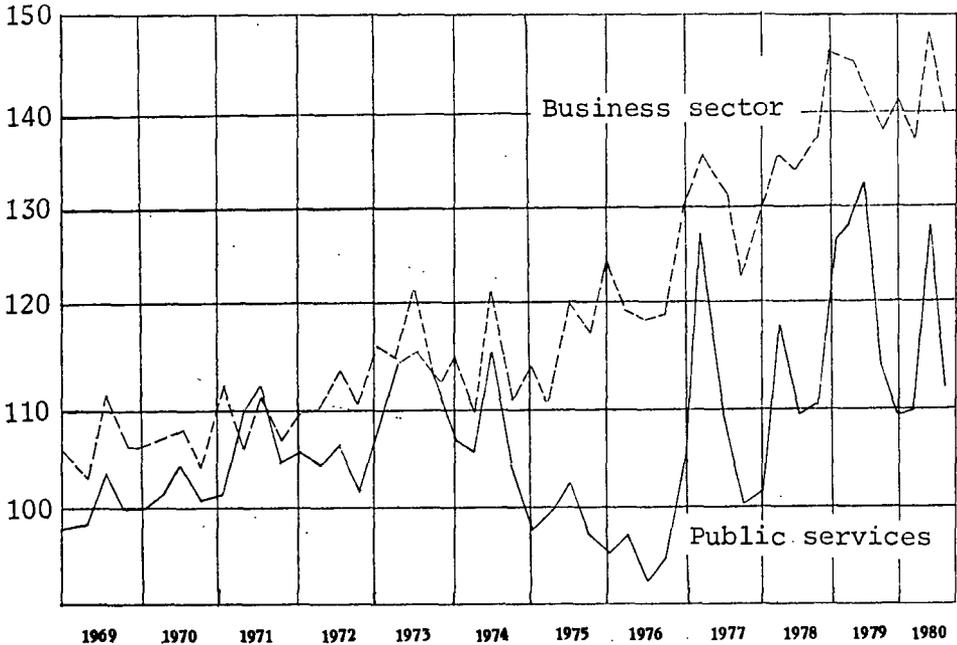
(Percentages, quarterly seasonally adjusted data)

Percent



NOTE: The series for females and total unemployed have been adjusted for seasonality.  
SOURCE: Central Bureau of Statistics labor force surveys.

**Figure IV-2**  
**REAL AVERAGE WAGES PER EMPLOYEE POST IN THE PUBLIC SERVICES**  
**AND BUSINESS SECTOR, 1969-80**  
**(1968=100)**



SOURCE: Central Bureau of Statistics, based on National Insurance Institute data.

The blunting of the growth of public services has aggravated a structural problem—the absorption of highly educated manpower in the business sector. During the past decade the proportion of such labor in the workforce rose appreciably; most of the increment could be absorbed in the public services and only a small percentage in the business sector. In view of the need to alter the structure of the economy, it will now be necessary to stress the development of production with a large highly educated labor input in order to exploit the qualitative potential of the labor force and to provide suitable employment to those expected to join it in the future from among the existing population and new immigrants alike.

The number of Israeli employed edged up 1 percent this year, after increases of 4.5 and 2.5 percent in 1978 and 1979 respectively. In the business sector the level rose by a mere 0.5 percent, after moving up 3.4 percent in 1978 and 2.4 percent in 1979; in the public sector the growth rate tumbled from 8.5 percent in 1978 to 3.4 percent in 1979 and 1.7 percent in 1980. The number of manhours worked per employed dropped this year due to the rising weight of part-time workers among both males and females; as a result, the labor input declined in both the business sector and public services.

After a steep jump in real wages in the business sector in 1978 and early

**Table IV-2**  
**SOURCES OF GROWTH OF THE LABOR FORCE AND EMPLOYMENT**  
**BY SECTOR, 1970-80**  
(Annual average increase in thousands, rounded figures)

	1970-73	1973-76	1977	1978	1979	1980
<b>A. Growth of labor force</b>						
	<b>Total population—Israelis</b>					
Total increase	38.8	15.1	37.2	51.0	19.9	40.2
Growth of population <sup>a</sup>	34.5	26.4	24.2	23.3	31.8	31.8
Change in age and schooling distribution <sup>b</sup>	7.2	3.6	12.0	13.5	3.8	6.5
Change in specific participation rates	-2.9	-14.9	1.0	14.2	-15.7	1.9
	<b>Males</b>					
Total increase	20.3	4.0	18.6	17.5	5.7	17.6
Growth of population	23.4	17.4	15.0	15.7	20.2	19.8
Change in age and schooling distribution	0.0	-1.9	3.6	1.8	0.0	0.2
Change in specific participation rates	-3.1	-11.5	0.0	0.0	-14.5	-2.4
	<b>Females</b>					
Total increase	18.5	11.1	18.6	33.5	14.2	22.6
Growth of population	11.1	9.0	9.2	7.6	11.6	12.0
Change in age and schooling distribution	7.2	5.5	8.4	11.7	3.8	6.3
Change in specific participation rates	0.2	-3.4	1.0	14.2	-1.2	4.3
<b>B. Increase in workers from administered areas</b>	14.8	-0.1	-1.9	5.3	5.9	-2.2
<b>C. Absorption by domestic sectors</b>						
	<b>Total domestic population</b>					
Total increase	53.6	15.0	35.3	56.3	25.8	38.0
Business sector <sup>c</sup>	44.9	-1.7	19.4	29.9	23.5	5.8
Public services—employees	11.7	12.5	11.1	29.1	10.2	5.4
Israeli unemployed	-2.9	4.2	4.8	-2.7	-7.9	26.8
	<b>Males</b>					
Total increase	35.1	3.9	16.7	22.8	11.6	15.4
Business sector	34.1	-1.3	12.1	16.7	13.9	1.1
Public services—employees	2.9	3.3	2.5	9.1	1.4	-0.8
Israeli unemployed	-1.9	1.9	2.1	-3.0	-3.7	15.1
	<b>Females</b>					
Total increase	18.5	11.1	18.6	33.5	14.2	22.6
Business sector	10.8	-0.4	7.3	13.2	9.6	4.7
Public services—employees	8.8	9.2	8.6	20.0	8.8	6.2
Israeli unemployed	-1.0	2.3	2.7	0.3	-4.2	11.7

<sup>a</sup> Assuming the average participation rates of the previous year.

<sup>b</sup> Assuming the specific participation rates of the previous year.

<sup>c</sup> Includes self-employed in public services.

1979, in the year reviewed they plateaued at their high average 1979 level. By contrast, in the public sector the level skidded 8.5 percent on average. However, this followed an exceptional 16 percent increase in 1979, much of which consisted of retroactive payments on account of previous periods.

Whereas in 1979 the formal wage framework was breached in almost all sectors, in 1980 the relatively moderate agreements signed in the first half of the year were adhered to, and the economy enjoyed peaceful labor relations. This can probably be attributed to several factors, of which the most important was the employment crisis in the first half of the year, which induced workers to temper their demands. Another reason was the gradual improvement in the wage-indexation arrangements in the last two years, when the indexation rate was raised, the indexation base broadened, and more frequent adjustments paid in the face of accelerating inflation. It would be desirable to do even more in this sphere in order to stabilize the wage structure and to ease future inflationary pressures.

Despite the improvement in adjusting direct taxes on wages for the rise of prices, mounting inflation further eroded disposable labor income.

The mutual relationship between the changes in the labor market variables can be clearly discerned when comparing the sectoral development of employment and the expansion of the civilian labor force with the more stable growth of the working-age population; these trends are also compared with the development of unemployment in the economy (see Figure IV-1). The recovery of economic activity in 1977 was reflected in the rapid growth of employment in the business sector, while the accelerated expansion of public services carried over till the end of 1978. The labor supply increased appreciably in 1977-78 owing to a much higher participation rate in those years, and consequently the unemployment ratio remained fairly stable. In the second quarter of 1979 signs of a slowdown appeared, accompanied by a change in the business sector employment trend. At the same time the labor supply also contracted sharply, so that unemployment remained at its low level. At the beginning of 1980 employment dipped noticeably in the business sector, while the decline in the labor force participation rate was checked and it even turned up a bit; the result was a virtual doubling of the unemployment rate.

During 1980 employment gradually picked up in the business sector, but not enough to alter the depressed state of the labor market. Employment sagged in the public services and there was a further slow rise in the labor force participation rate; as a result of these developments, the percentage of jobless increased during the year. The weakening of demand in the labor market was not accompanied by a further reduction of the labor supply which was evident last year; the female participation rate, in fact, even rose. There were several possible reasons for this development,<sup>2</sup> but it is apparently too early to de-

<sup>2</sup> On the possible reasons for this development see section 3.

**Table IV-3**  
**ISRAELI LABOR FORCE, SELECTED DATA, 1970-80**  
(In thousands unless otherwise stated; annual averages)

	1977	1978	1979	1980	Percent annual increase					
					1973 as against 1970	1976 as against 1979	1977	1978	1979	1980
<b>Average population</b>	3,613	3,693	3,786	3,874	3.3	2.5	2.3	2.2	2.5	2.3
1. Working-age population	2,482	2,532	2,596	2,661	3.4	2.3	2.1	2.0	2.5	2.5
2. Civilian labor force	1,207	1,258	1,277	1,318	3.7	1.3	3.2	4.2	1.6	3.2
3. Participation rate (%)	48.6	49.7	49.2	49.5						
4. Total employed	1,159	1,213	1,241	1,255	4.1	1.0	2.9	4.6	2.3	1.1
5. Unemployed	47	45	37	64						
6. Unemployment rate (%)	3.9	3.6	2.9	4.8						
<b>Males</b>										
1. Working-age population	1,227	1,251	1,282	1,313	3.3	2.2	1.9	2.0	2.5	2.4
2. Civilian labor force	796	813	819	834	2.8	0.5	2.4	2.2	0.7	2.1
3. Participation rate (%)	64.9	65.0	63.9	63.7						
4. Total employed	770	790	799	802	3.2	0.3	2.3	2.6	1.2	0.3
5. Unemployed	26	23	20	35						
6. Unemployment rate (%)	3.3	2.9	2.4	4.1						
<b>Females</b>										
1. Working-age population	1,256	1,281	1,314	1,348	3.6	2.4	2.3	2.0	2.6	2.6
2. Civilian labor force	411	444	459	481	5.8	3.0	4.8	8.1	3.2	4.9
3. Participation rate (%)	32.7	34.7	34.9	35.7						
4. Total employed	390	423	441	452	6.5	2.4	4.3	8.5	4.4	2.4
5. Unemployed	21	22	17	29						
6. Unemployed rate (%)	5.1	4.8	3.8	6.0						
<b>Workers from administered areas</b>	62.9	68.2	74.1	71.9	6.2	0.0	-2.9	8.4	8.7	-3.0

SOURCE: Central Bureau of Statistics labor force surveys and Bank of Israel calculations.

termine whether the long-run trend has in fact changed and to attempt to explain it.

## 2. POPULATION

After picking up in 1978-79, in the year reviewed immigration sank to its low 1975-77 level. The number of newcomers in 1980 was approximately 20,000, as opposed to 37,000 in 1979. The downturn encompassed all continent of origin groups and all countries, with the most conspicuous drop being recorded for the Soviet Union, the chief source of immigration in recent years; here the figure was halved.

**Table IV-4**  
**SOURCES OF GROWTH OF ISRAEL'S PERMANENT POPULATION, 1974-80**  
(In thousands unless otherwise stated)

	1974	1975	1976	1977	1978	1979	1980 <sup>a</sup>
1. Permanent population at beginning of year	3,338	3,422	3,493	3,575	3,653	3,738	3,836
2. Total natural increase	69.2	71.2	74.7	70.5	67.6	68.8	68.0
3. Rate of natural increase <sup>b</sup>	20.5	20.6	21.2	19.5	18.2	18.2	17.6
4. Rate of natural increase among Jews <sup>b</sup>	17.2	17.6	18.0	16.4	15.2	15.0	14.7
5. Rate of natural increase among non-Jews <sup>b</sup>	39.5	37.0	38.4	36.3	34.8	34.2	31.9
6. Gross immigration <sup>c</sup>	33.5	20.6	20.4	22.2	28.8	37.2	22.2
7. Net emigration <sup>d</sup>	19.3	20.2	13.0	14.6	12.0	7.7	4.7
8. Migration balance (6-7)	14.3	0.3	7.4	7.6	16.8	29.5	17.5
9. Total population growth (2+8)	83.4	71.6	82.1	77.8	84.4	98.3	85.5
10. Permanent population at end of year (1+9)	3,422	3,493	3,575	3,653	3,738	3,836	3,922
11. Percent annual increase in permanent population at end of year	2.5	2.1	2.3	2.2	2.3	2.6	2.2
12. Thereof: Share of natural increase	82.9	99.4	91.4	90.4	80.0	70.0	79.5
13. Thereof: Share of net migration	17.1	0.6	9.0	9.6	20.0	30.0	20.5

<sup>a</sup> Provisional data.

<sup>b</sup> Per thousand of the relevant permanent average population.

<sup>c</sup> Immigrants, tourists acquiring immigrant status, immigrating citizens (children born to Israeli citizens abroad), and persons returning under the family reunion scheme.

<sup>d</sup> Israelis residing abroad for 12 months or more, potential immigrants who left for abroad, and residents who did not return from a visit to Jordan. (See also CBS, *Statistical Abstract of Israel 1980*, pp. 115, 120.)

SOURCE: Central Bureau of Statistics.

Data for previous years indicate a connection between the employment situation in Israel and the size of immigration and emigration.<sup>3</sup> Both immigration and emigration presumably react to the possibilities of finding suitable employment in this country, but over time there is also an effect in the opposite direction: the scope of immigration influences housing demand and consumption, and thus the level of economic activity. It may therefore be assumed that the contraction of net immigration in 1980 will have some moderating effect on economic activity in the coming years.

### 3. CIVILIAN LABOR FORCE

The civilian labor force increased by some 40,000 in 1980, compared with 51,000 in 1978 and only 20,000 in 1979. In recent years females have accounted for most of the increment; in 1980, however, their share dipped somewhat, from 67 and 72 percent in 1978 and 1979 respectively to 57 percent. The fluctuations in the rate of labor force growth mainly reflect variations in the participation rate: with the rebounding of economic activity in 1977 and 1978, the overall participation rate rose, ending the prolonged slump which began in the wake of the Yom Kippur War. But in 1979 the trend again turned downward, only to move up somewhat in 1980. Together with these fluctuations, which were mainly induced by demand changes in the labor market, it is possible to discern the long-term trends—a decline in the male participation rate and a rise in that for females.

The economic importance of the population's participation in the labor force lies in the fact that it is the principal determinant of labor supply, and consequently it strongly influences economic growth in the long run. In the short run the response of the supply to the prevailing demand conditions is important, since it determines the scope of unemployment during recessionary periods, as well as the growth rate when economic activity picks up. In order to assess the influence of the various factors affecting labor force participation, it is necessary to distinguish between those that are exogenous to the labor market, such as changes in the age structure of the population or in its distribution by number of years of schooling, and changes in the specific participation rates of identical age groups or educational levels, which also reflect long-term trends in the behavior of the labor market and in demand conditions in the economy during different periods. Table IV-A2 details the determinants of the participation rates since 1965.

The table reveals that the long-run declining trend in the male participation rates was due primarily to changes in specific rates, while the long-run rising

<sup>3</sup> The emigration data show actual emigration with a one-year time lag; accordingly, the data for 1980 mainly reflect the numbers of persons who left the country in 1979.

trend for females is mainly explained by changes in the composition of the population, notably the rise in educational levels.<sup>4</sup>

Table IV-2 lists the factors contributing to the expansion of the labor force in recent years: the growth of the working-age population, changes in the age structure and in the number of years of schooling, and changes in specific participation rates. The variations in the contribution of the specific participation rates reflect the variations in demand conditions: a contraction during the 1973-76 standstill in economic activity, a sharp upturn in 1978 with the rebounding of the economy, and another steep decline with the sagging of employment in 1979. Contrary to expectations, the trend did not continue downward in 1980, despite the weakness in the labor market. Various conjectures can be made as to the reasons for this phenomenon. One is that the overt unemployment induced additional family members to join the labor force and seek new sources of income in place of those the family had lost. Another possibility is that this testifies to a normative change similar to that evident in a number of western states, namely a tendency to prefer living on unemployment insurance rather than accept less desirable work. No data are presently available to verify either of these assumptions; the reasons will probably come to light only after some time.

#### 4. EMPLOYMENT BY ECONOMIC SECTOR

The data in Table IV-2 show that in 1980 only some 11,000 persons out of the 38,000 joining the labor force found jobs (both figures are net annual averages). The number of unemployed increased, on an annual average, by about 27,000, representing nearly 70 percent of the labor force increment.

The public services absorbed 6,000 new employees (net annual average), compared with 10,000 in 1979 and 29,000 in 1978; the business sector hired only 4,500, as against 24,000 in 1979 and 30,000 in 1978. The average growth in the business sector during 1980 reflected a sharp decrease of 10,400 in the first quarter and increases of 13,900, 5,600, and 2,100 in the following three quarters.

In contrast to the overall contraction of the labor input in 1980, there was a 3 percent growth in agriculture, following a 2 percent drop the year before; this reflected the expansion of the agricultural product in the year reviewed.

In financial services the long-term rapid uptrend in the labor input tailed

<sup>4</sup> After discounting the influence of changes in the composition of the population and of other identifiable factors, the data in Table IV-A2 show the following long-term trends in participation rates: males—an average annual decrease of 0.6 percent in 1965-72 and 0.45 percent in 1972-80; females—an average annual decrease of 0.1 percent in 1965-72 and an average annual increase of 0.1 percent in 1972-80.

**Table IV-5**  
**NUMBER OF EMPLOYED AND LABOR INPUT IN THE MAIN ECONOMIC SECTORS, 1976-80**

	1976	1977	1978 <sup>a</sup>	1979	1980	Percent annual increase			
						1977	1978 <sup>b</sup>	1979	1980
<b>A. Employed (in thousands, annual average)</b>									
1. Israelis	1,127	1,160	1,213	1,241	1,255	2.9	4.5	2.3	1.1
2. From the administered areas	65	63	68	74	72	-2.9	8.4	8.7	-3.0
3. Total employed in Israel (1+2)	1,192	1,223	1,281	1,315	1,326	2.6	4.7	2.6	0.8
4. In public services	310	323	350	362	368	4.1	8.5	3.4	1.7
5. In the business sector (3-4)	882	900	931	953	958	2.0	3.4	2.4	0.5
6. Thereof: Construction and allied industries <sup>c</sup>	165	157	158	164	160	-5.1	0.9	3.7	-2.4
7. Business sector, excl. construction and allied industries (5-6)	717	744	773	789	798	3.7	3.9	2.1	1.1
<b>B. Labor input of employed (millions of hours, weekly average)</b>									
1. Israelis	42.95	43.27	44.44	46.29	45.79	0.7	4.9	4.2	-1.1
2. From the administered areas	2.59	2.57	2.79	3.05	2.82	-1.2	8.8	9.3	-7.4
3. Total domestic labor input (1+2)	45.54	45.84	47.24	49.34	48.61	0.6	5.1	4.4	-1.5
4. In public services	10.78	10.84	11.55	12.09	11.99	0.6	9.1	4.7	-0.8
5. In the business sector (3-4)	34.76	34.99	35.68	37.25	36.62	0.6	3.9	4.4	-1.7
6. Thereof: Construction and allied industries	6.60	6.01	6.10	6.52	6.34	-7.6	1.4	6.9	-2.8
7. Business sector, excl. construction and allied industries (5-6)	28.16	28.99	29.58	30.73	30.28	2.5	2.0	3.9	-1.5

<sup>a</sup> Data on manhours per employed and per employee are from part of a sample taken by a new method.

<sup>b</sup> In 1978 a new sample was taken for the labor force survey and the questionnaire was altered. The comparison between 1977 and 1978 is based on the number of hours worked per employed and per employee as obtained from the half of the 1978 labor force survey carried out with the old questionnaire.

<sup>c</sup> Wood and wood products, nonmetallic minerals, and trucking services.

SOURCE: Central Bureau of Statistics and Bank of Israel calculations (rounded figures).

**Table IV-6**  
**TOTAL EMPLOYED IN ISRAEL AND LABOR INPUT IN THE BUSINESS SECTOR BY BRANCH, 1976-80**

	1976	1977	1978	1979	1980	Percent annual increase			
						1977	1978	1979	1980
<b>Employed (in thousands)</b>									
Total business sector	882	900	931	953	958	2.0	3.4	2.4	0.5
Business sector, excl. construction and allied industries <sup>a</sup>	717	744	773	789	798	3.7	3.9	2.1	1.1
Construction	119	114	111	116	113	-4.2	-2.5	4.9	-2.6
Industry	287	291	300	315	309	1.5	3.2	5.0	-1.8
Agriculture	82	83	85	83	89	0.5	3.4	-2.6	7.0
Transportation	79	80	83	84	86	2.2	2.9	2.2	1.8
Trade, personal and business services	258	265	275	277	281	2.8	3.7	0.7	1.4
Financial services	39	46	51	53	57	15.2	11.7	5.1	6.6
Electricity and water	12	14	13	11	13				
Unknown	7	9	13	13	10				
<b>Labor input (millions of hours, weekly average)</b>									
Total business sector <sup>b</sup>	34.76	34.99	35.68	37.25	36.62	0.6	3.9	4.4	-1.7
Business sector, excl. construction and allied industries <sup>a</sup>	28.16	28.99	29.58	30.73	30.28	2.5	2.0	3.9	-1.5
Construction	4.67	4.40	4.27	4.67	4.44	-5.8	-1.7	9.4	-4.9
Industry	11.52	11.37	11.54	12.49	11.97	-1.2	3.2	8.2	-4.2
Agriculture	3.29	3.27	3.40	3.32	3.43	-0.8	6.7	-2.4	3.3
Transportation	3.20	3.20	3.28	3.43	3.41	-0.1	2.5	4.6	-0.7
Trade, personal and business services	9.81	10.16	10.31	10.47	10.38	3.6	1.6	1.6	-0.9
Financial services	1.56	1.71	1.90	2.04	2.15	9.9	12.0	7.4	5.4

<sup>a</sup> Wood and wood products, nonmetallic minerals, and trucking.

<sup>b</sup> The data do not add up owing to the omission of electricity and water and "unknown".

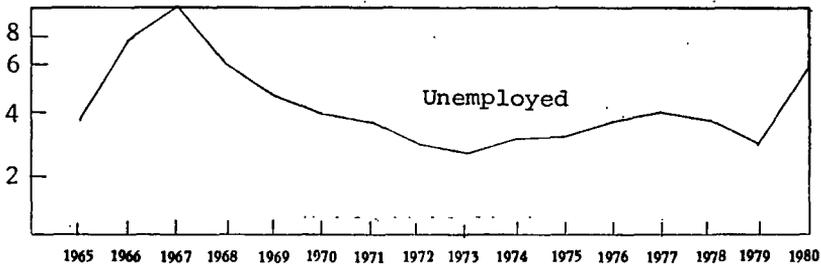
SOURCE: Central Bureau of Statistics and Bank of Israel calculations. (rounded figures).

Figure IV-3

INDICATORS OF UNEMPLOYMENT, 1965-80

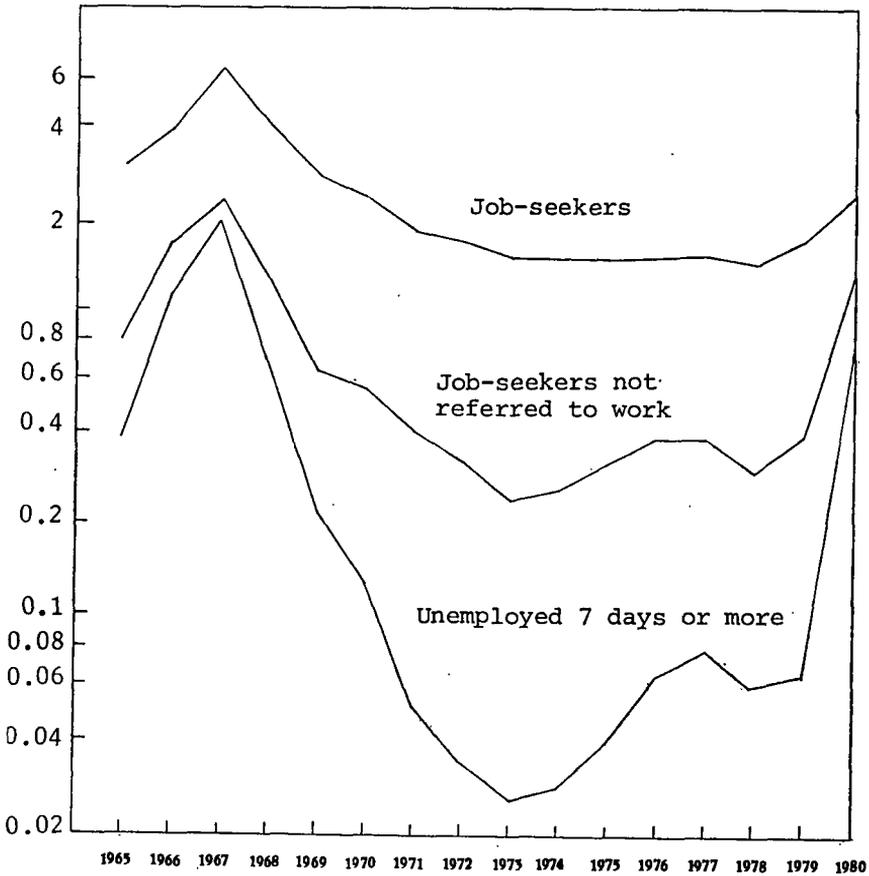
(Percent of civilian labor force)

Percent



SOURCE: Central Bureau of Statistics labor force surveys.

Percent



SOURCE: Employment Service, Ministry of Labor.

off somewhat in 1980, the increase coming to 5 percent as against 7 percent in 1979 and 12 percent in 1978.

In manufacturing employment fell off mainly in the textile, clothing, and leather industry, paper and paper products, basic metals, and metal products. In mining and quarrying, rubber and plastics, chemical products, and nonmetallic minerals employment increased in 1980.<sup>5</sup> The labor input changes in the various branches chiefly reflect the development of their output—an indication of their sensitivity to the subsiding of domestic demands and their ability to step up exports (see Chapter VI, “The Principal Economic Sectors”).

## 5. UNEMPLOYMENT

As in the past, employment service data revealed the change of trend in the labor market several months earlier than the labor force surveys. Clear signs of an increase in unemployment appeared already in the third quarter of 1979, when data from the employment exchanges showed a significant rise in the daily average of unemployed, the number of persons seeking work, and in various other indicators (see Table IV-7). The unemployment rate went up in the first quarter of 1980, when for males it reached 4.3 percent compared with 2.4 percent at the end of 1979, and for females 5 percent as against 3.8 percent.<sup>6</sup> This marked aggravation of unemployment was caused by a much smaller demand for labor in the business sector at the beginning of 1980, after the growth of employment had begun to slow in the second quarter of 1979.

The percentage of male unemployed remained at its high level throughout 1980, while for females the rate rose in the second half of the year to over 6.5 percent. Provisional data for the beginning of 1981 do not reveal any drastic change in the picture. The continuation of unemployment throughout 1980 was the combined result of a very sluggish increase in business sector employment and a contraction in the public sector. Another contributory factor was the comparatively high female participation rate in 1980—35.7 percent as against 34.9 percent in 1979. The appreciable growth of unemployment during the year surveyed was accompanied by significant changes in its characteristics (see Table IV-8): it deepened noticeably, and the proportion of jobless seeking work for five weeks or more jumped from 56 percent in 1979 to 70 percent. With work becoming increasingly harder to find, the proportion of unemployed registered at labor exchanges rose from 43 percent in 1979 to 57 percent.

Among unemployed who had worked during the past 12 months, the pro-

<sup>5</sup> These estimates are based on labor force surveys and are not identical with the industrial survey estimates presented in Chapter VI.

<sup>6</sup> Seasonally adjusted rates.

**Table IV-7**  
**QUARTERLY EMPLOYMENT SERVICE DATA, 1979-80**

(Monthly averages)

	1979				1980			
	I	II	III	IV	I	II	III	IV
<b>Job-seekers</b>								
<b>Total</b>	17,773	17,058	21,823	24,507	26,576	30,275	34,219	37,317
<b>Males</b>	9,702	9,499	11,233	12,904	17,030	18,831	20,611	21,230
<b>Females</b>	8,071	7,559	10,590	11,603	9,546	11,444	13,608	16,087
<b>Daily average unemployed</b>								
<b>Total</b>	1,241	1,157	1,467	2,044	5,724	8,176	10,704	12,075
<b>Males</b>	695	663	793	1,164	4,186	5,696	7,333	7,296
<b>Females</b>	545	494	674	880	1,538	2,480	3,370	4,779
<b>Job openings</b>	27,990	24,681	24,347	25,609	17,070	17,782	16,945	20,268
<b>Unfilled job openings</b>	10,131	8,887	6,203	5,680	2,866	2,514	2,385	2,709
<b>Job-seekers not referred to work</b>	3,850	3,818	5,564	7,439	13,359	15,332	19,369	20,563
<b>Unemployed 7 days or more</b>	671	552	772	1,430	6,885	9,568	12,827	14,541
<b>Receiving unemployment compensation (not undergoing vocational training)</b>	1,101	803	1,028	1,194	2,462	5,624	6,844	10,724

Table IV-8

## CHARACTERISTICS OF THE UNEMPLOYED, 1978-80

(Percent of total unemployed unless otherwise stated)

	1978	1979	1980
1. Sought work for 5 weeks or more	59	56	70
2. Sought work through labor exchanges	39	43	57
3. Worked during last 12 months	48	51	48
Thereof:			
Lost jobs (percent of group 3)		38	61
Left jobs (percent of group 3)		34	9
Last job in industry (percent of group 3)		25	26
Last job in public services (percent of group 3)		18	20
4. Percentage of males	52	53	55
5. Number of years of schooling			
0-4	3.6	3.3	3.8
5-8	23.9	23.1	22.3
9-12	54.7	56.0	56.0
13+	16.4	16.7	16.4
6. Age			
14-17	11.2	9.5	8.3
18-24	39.4	38.8	38.4
25-34	29.3	32.3	30.3
35-54	15.9	15.8	17.9
55+	4.2	3.6	5.1
7. Completed military service but not yet found work		10	12
8. Geographical distribution of unemployed—percent			
Jerusalem District	4.3	3.3	4.9
Northern District	3.4	2.5	5.1
Haifa District	3.3	3.2	5.1
Central District	3.0	2.2	4.0
Tel Aviv District	3.7	2.8	4.6
Southern District	4.4	4.2	6.2

SOURCE: Central Bureau of Statistics labor force surveys (including some data not previously published).

portion who lost their jobs rose from 39 percent in 1979 to 59 percent, while the proportion who left their jobs tumbled from 18 to a mere 4 percent.

The unemployment rate was more or less uniform in all segments of the economy and in the various labor force categories. There were no significant changes in the breakdown of unemployment by sex, educational level, age, previous employment, or geographic area. However, the percentage of men and of persons aged 35 or more rose fractionally, and unemployment was more severe in the northern and central districts than in the other parts of the country.

The percentage of persons who had not found work since completing their military service moved up from 10 to 12 percent. It would thus appear that the proportion of unemployed among demobilized soldiers grew faster than among the rest of the population.

Beginning in April 1980 unemployment insurance benefits were adjusted four times a year for the rise in the consumer price index, instead of only once a year. This remedied the severe erosion in the real value of the benefits that took place in 1978 and 1979, restoring it to its level of the mid-1970s.<sup>7</sup> Against the contention that the real increase in unemployment benefit payments influences their volume it can be argued that during the recession of the mid-1970s there was no comparable rise in unemployment, even though the real value of the benefits was then slightly higher than in 1980.

## 6. WAGES

The growth of wages in 1980 must be viewed in conjunction with the deviant increases awarded in 1979 and the rise of real wages in the business sector, which has persisted for several years without a concomitant gain in labor productivity. Several factors were apparently responsible for the inordinate growth of real wages. First of all, the cyclical upswing in economic activity in 1977 led to a heavier demand in the labor market, and in its wake to mounting

<sup>7</sup> The average daily unemployment benefit payment as a percent of the average wage per employee post in 1975-80 was as follows:

1975	1976	1977	1978	1979	1980	1980			
						I	II	III	IV
38.0	40.1	36.3	34.5	28.6	35.0	26.4	35.3	38.3	38.3

Those eligible for such benefits are persons who worked and paid unemployment insurance for at least 180 days during the year preceding their loss of work, and those completing their military service (not counting reserve duty), for one year after their release. The size of the benefit is determined in relation to the wage earned during the last 75 days of employment, and benefits are paid for a maximum of 175 days or less, depending on the age and family status of the unemployed (see also National Insurance Institute publications).

**Table IV-9**  
**ANNUAL INCREASE IN AVERAGE REAL WAGE PER EMPLOYEE**  
**POST,<sup>a</sup> 1976-80**  
(Percentages)

	1976	1977	1978	1979	1980
Total economy	1.4	10.6	1.5	9.5	-3.3
Public services	-4.3	16.9	-0.8	15.6	-8.5
Business sector	4.6	6.9	2.9	5.9	-0.3
Agriculture, forestry, fishing	0.9	4.6	3.3	5.8	-1.4
Industry	6.2	6.3	2.9	6.2	0.0
Electricity and water	-8.1	27.6	6.7	-1.7	2.4
Construction	7.4	-1.1	0.5	6.7	-1.0
Trade, restaurants, and hotels	5.0	6.5	3.5	4.9	-3.8
Transportation, communications, storage	-0.3	10.7	4.8	3.5	0.9
Financial and business services	3.5	11.6	-0.8	5.6	0.8
Other personal services	8.2	7.3	3.7	7.1	-3.5

<sup>a</sup> Calculated from wage indexes, deflated by the consumer price index. Includes residents from the administered areas working in Israel.

SOURCE: Central Bureau of Statistics.

pressure for wage increases. The wage indexation arrangement in force in 1978 (payment of adjustments at the rate of 70 percent of the rise in consumer prices after a six-month lag) apparently sufficed to maintain wage stability when inflation was running at around 40 percent a year (the 1978 level). But when prices began to move up much more rapidly toward the end of 1978, the indexation arrangement and existing wage agreements no longer provided sufficient compensation for the erosion of real wages, and hence failed to preserve the stability of the wage structure. Most of the biennial wage pacts signed in 1978 for the years 1978-79, which allowed for a lower rate of inflation, were therefore reopened. The claims for exceptionally large increases took into account not only the prevailing high inflation but also the prospective continued erosion of employees' real earnings. It was probably the highly optimistic business outlook which prevailed in the final part of 1978 following the signing of the peace agreement with Egypt that induced employers to accept these demands for excessive increases. As a result, real wages in the business sector jumped sharply at the beginning of 1979. In the public services the delay in signing wage agreements led to the payment of large retroactive adjustments for a relatively long period, and consequently real earnings in this sector went up even faster than in the business sector. While inflation ate into the value of wages in 1979, in real terms they rose 6 percent in the business sector and by as much as 16 percent in the public services (annual average rates).

In contrast to these changes, in 1980 the wage structure developed in a restrained manner, with almost no deviations from the formal wage agreements concluded. This was apparently due to several factors. First of all, the worsening of the employment situation at the end of 1979 and beginning of 1980 apparently had a strong effect on labor relations in the year reviewed,<sup>8</sup> discouraging excessive wage demands in the various sectors. Another stabilizing influence in the labor market was the adjustment of the wage indexation system to the faster pace of inflation: the payment of cost-of-living allowance increments at more frequent intervals and at a higher rate, and the full and more frequent updating of income tax brackets.<sup>9</sup> In 1979, besides two cost-of-living adjustments, employees received three advances—in January, July, and September. In January 1980 a further advance was paid and the cost-of-living allowance arrangement was modified, with the rate of indexation being officially raised to 80 percent of the increase in the consumer price index and with adjustments payable four times a year. Under the new arrangement income tax brackets are also adjusted four times a year and to the full extent of the price rise, instead of only twice a year at a 70 percent rate.

Because of the employment situation prevailing at the beginning of 1980, the wage agreements, which were due to be renegotiated, were frozen. Instead, a framework agreement for a two-year period covering the entire economy was signed by the Histadrut (General Federation of Labor), employers in the business sector, and the public sector. No branchwide agreements were added to this framework agreement in 1980, and supplements on an individual plant level were paid in only a few segments of the business sector. Under the framework agreement, which is intended to encourage employment and maintain real wages as far as possible, a 7.5 percent increase was paid in April 1980 and another 7.5 percent from the middle of November.

As a result of the aforementioned increases and cost-of-living adjustments,

<sup>8</sup> The number of strike-days lost in 1977-80 was as follows (in thousands):

1977	1978	1979	1980
417	1,072	539	248

<sup>9</sup> From the aspect of a policy designed to maintain stability in the labor market, there appears to be an interrelation between the rate of inflation and its acceleration on the one hand and the desirable wage indexation mechanism on the other. It is reasonable to assume that with the speeding up of inflation it is advisable to reduce the lag in compensating employees, for the longer such compensation is delayed, the sharper will be the real fluctuations in both directions. The upswings tend to perpetuate the wage-price spiral and thus generate pressures which undermine the formal framework agreements. It is also desirable to increase the rate of indexation when inflation accelerates in order to dampen the fluctuations in real wages. But at the same time it is necessary to leave sufficient room for maneuver so as to permit the efficient negotiation of wage issues, thereby endowing the wage structure with an essential flexibility. For a further discussion of this point see Chapter III, "Prices".

in 1980 real wages in the business sector remained at their average 1979 level. On the other hand, in the public services the annual average real wage level dipped 8.5 percent, mainly because of the large retroactive payments made in 1979 on account of the previous year.

Though the arrangements for updating direct taxes on wages were improved, the disposable income of employees from work eroded further,<sup>10</sup> as there was still some lag in indexing this system to the high rate of inflation which prevailed in 1980.

<sup>10</sup> Only partial data are available on this point: the weight of income tax and national insurance contributions deducted from the gross pay of some 85,000 civil servants rose from 29.2 percent in 1979 to 30.4 percent in 1980 (see also Chapter V).

Table IV-A1

## ANNUAL EMPLOYMENT SERVICE DATA, 1977-80

(In thousands; monthly averages unless otherwise stated)

	1977	1978	1979	1980	Percent annual increase		
					1978	1979	1980
<b>Job-seekers</b>							
<b>Total (adults)</b>	18,795	18,518	29,290	32,097	-1.5	9.6	58.2
<b>Males</b>	10,610	10,056	10,834	19,426	-5.2	7.7	79.3
<b>Females</b>	8,185	8,462	9,456	12,671	3.4	11.7	34.0
<b>Daily average unemployed</b>							
<b>Total</b>	1,484	1,361	1,477	9,170	-8.3	8.5	521
<b>Males</b>	934	787	829	6,124	-15.7	5.3	639
<b>Females</b>	550	574	648	2,946	4.4	12.9	355
<b>Job openings</b>	23,102	25,466	25,657	18,016	10.2	0.8	-29.8
<b>Unfilled job openings</b>	5,984	8,065	7,725	2,618	34.8	-4.2	-66.1
<b>Job-seekers not referred to work<sup>a</sup></b>	4,381	3,945	5,160	17,156	-10.0	31.0	232.0

<sup>a</sup> As from January 1978 excludes persons referred to vocational guidance.

Table

**CIVILIAN LABOR FORCE**  
(Rounded estimates in

	Males			
	1965	1965-70	1970-72	1972-75
1. Participation rate at end of period	761	692	685	648
2. Change during the period		-69	-7	-37
				<b>Average</b>
3. Total average annual change		-13.8	-3.5	-12.3
<b>Effect of changes in population structure</b>				
4. Effect of schooling distribution		-1.4	-2.0	-1.6
5. Effect of age distribution		-1.0	1.5	-0.7
6. Age-schooling interaction effect		-0.4	0.0	0.0
7. Total population structure effect		-2.8	-0.5	-2.3
<b>Specific changes</b>				
8. Total (3-7)		-11.0	-3.0	-10.0
9. Contribution of specific changes in age groups to overall participation rate				
14-17		-2.0	-0.3	2.1
18-34		-5.8	0.0	-5.1
35-54		-1.2	-0.2	-0.7
55+		-2.0	-2.5	-2.1
10. Specific changes in age groups				
14-17		-17.0	-2.5	-18.0
18-34		-15.0	0.0	-11.0
35-54		-3.4	-0.8	-3.0
55+		-8.4	-12.0	-10.0

NOTE: Specific changes in the labor force participation rates were estimated by subtracting the effects of changes in the age and schooling composition of the population from the gross participation rates. The following procedure was used:

Let  $X_{ij}$  = number of persons in the total population aged  $i$  and with  $j$  years of schooling in period  $t$

$P_{ij}^t$  = participation rate of this group

The participation rate of the total population in period  $t$  will be

$$(1) \quad P^t = \frac{\sum_i \sum_j X_{ij}^t P_{ij}^t}{\sum_i \sum_j X_{ij}^t}$$

We denote the gross change between periods 1 and 2 thus:  $\Delta P = P^2 - P^1$ .

The effect of a change in the population due to changes in characteristics  $i$  and  $j$  is given by

$$(2) \quad \Delta P_{ij} = \frac{\sum_i \sum_j X_{ij}^2 P_{ij}^1}{\sum_i \sum_j X_{ij}^2} - P^1$$

(Henceforth  $\sum_i \sum_j X_{ij}^2 = Z$ )

IV-A2

**PARTICIPATION RATES, 1965-80**

pro mil points)

		Females					
1975-78	1978-80	1965	1965-70	1970-72	1972-75	1975-78	1978-80
650	638	294	293	308	317	347	357
2	-12		-1	15	9	30	10
<b>annual changes</b>							
<b>0.7</b>	<b>-6.0</b>		<b>-0.2</b>	<b>7.5</b>	<b>3.0</b>	<b>10.0</b>	<b>5.0</b>
1.6	0.0		2.8	4.0	7.3	5.0	5.0
-0.3	1.0		0.0	0.0	-0.7	-0.3	-0.5
-0.6	0.0		-0.6	1.0	0.4	0.0	-1.0
<b>0.7</b>	<b>1.0</b>		<b>2.2</b>	<b>5.0</b>	<b>7.0</b>	<b>4.7</b>	<b>3.5</b>
<b>0.0</b>	<b>-7.0</b>		<b>-2.4</b>	<b>2.5</b>	<b>-4.0</b>	<b>5.2</b>	<b>1.5</b>
0.0	-1.5		-2.0	0.1	1.7	0.2	-0.2
1.0	-0.8		-1.3	0.5	-2.4	2.5	-0.5
-1.0	-2.2		1.2	1.4	1.6	1.9	1.5
0.0	-2.5		-0.3	0.5	-1.4	0.6	0.7
-0.8	-12.0		-17.0	-1.5	-16.0	2.0	-2.5
+3.0	-2.0		-3.6	1.0	-7.0	8.0	-1.6
-4.0	-9.0		4.0	5.0	6.0	9.0	7.0
0.0	-12.0		-1.4	1.5	-6.0	5.0	3.5

$\Delta P_i$  = age effect       $\Delta P_j$  = schooling effect

$$(3) \quad \Delta P_{ij} = \left[ \frac{\sum_i \bar{X}_i^2 \bar{P}_i^1}{Z} - P^1 \right] + \left[ \frac{\sum_j \bar{X}_j^2 \bar{P}_j^1}{Z} - P^1 \right]$$

interaction effect: age  $\times$  schooling  
 +  $[\Delta P_{ij} - \Delta P_i - \Delta P_j]$

The change in the specific participation rate of the population can be written

$$(4) \quad \Delta P^1 = \Delta P - \Delta P_{ij} = \frac{\sum_j \sum_i X_{ij}^2 [P_{ij}^2 - P_{ij}^1]}{Z}$$

This equals the sum of the "contributions" of the different age groups to the change in the specific participation rate of the total population

$$(5) \quad \Delta P^1 = \frac{\sum_j X_{1j} [P_{1j}^2 - P_{1j}^1]}{Z} + \dots + \frac{\sum_j X_{nj}^2 [P_{nj}^2 - P_{nj}^1]}{Z}$$