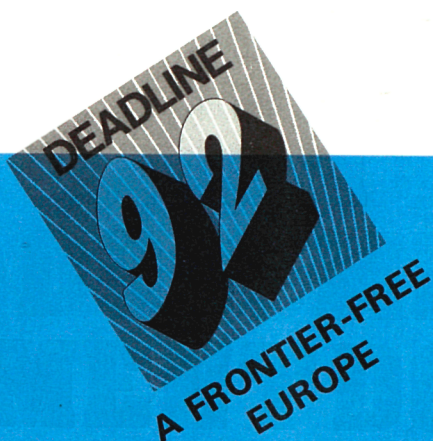


COLLECTIVE BARGAINING IN THE CONSTRUCTION INDUSTRY

WAGES, HOURS AND VOCATIONAL TRAINING IN BELGIUM,
THE FEDERAL REPUBLIC OF GERMANY, FRANCE, ITALY, SPAIN
AND THE UNITED KINGDOM



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WAGES, HOURS AND VOCATIONAL TRAINING IN BELGIUM, THE
FEDERAL REPUBLIC OF GERMANY, FRANCE, ITALY, SPAIN AND
THE UNITED KINGDOM**

by

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Preface

The following research has been conducted for the Commission of the European Communities, Directorate General for Employment, Social Affairs and Education and is based on interviews and documentation collected during the summer and fall of 1987. The research is limited to six countries and is focused on three specific subjects: wages and the related matter of compensation, hours of work and vocational training. In order to put these topics into perspective for each country, this report includes some information about the economic conditions in the construction sector and the main actors in the industrial relations arena: unions and employers associations.

The statistical information in each chapter is based on the national sources, which were the only ones detailed enough to cover certain topics. Unfortunately this poses the problem of comparability among the different countries. For the purpose of comparability, before the country studies there is a collection of the main indicators related to the construction sector that have been gathered from the most recent published volumes of EUROSTAT and other international institutions. These data have the advantage of comparability but often are not recent, and sometimes their information does not coincide with the national figures.

This introduction has been updated to include the most recent statistical information available from EUROSTAT in July of 1989.

The reader should also be aware of the following elements:

- 1) The term "Construction" is used to indicate the entire sector of Housing, Industrial and Commercial Building, and Civil Engineering.

2) The term 'Employees' is used to indicate all wages and salary earners; the same group is called sometimes dependent employees to distinguish it from the self-employed.

3) When there are numbers the decimals are indicated after the "." sign, such as 10.35 per cent; the thousands are indicated with the "," sign, such as 1,350,000.

4) In the text, sources are given with author and year in parenthesis such as Hillebrandt (1984); at the end of each chapter there is a list of all the sources quoted with complete bibliographical references.

5) Table and figures are to be found at the end of each chapter.

Comparative Introduction

The following pages present data published by EUROSTAT, or other International agencies, and contain statistical information on the countries examined in this report. It seems useful to have the country's report preceded by a comparative overview of some basic information about the construction sector. (Unfortunately, EUROSTAT does not yet contain complete information about Spain).

The first element to be considered is the level of **economic activity** in the construction sector. In table 1 it is possible to see an index for the entire construction sector for the period 1976-1988. In most countries, with the exception of the U.K and Spain (where the peak is in 1988) the index has reached the maximum around 1980 and has been declining since then. Only in 1985-86 has the negative trend started to change (with the exception of Italy). The negative economic environment should be kept in mind when considering the strategies and the options of unions and employers. Another way of seeing the declining importance of the construction sector is to look at residential and non residential construction as percentages of the Gross Domestic Product. In all countries this percentage has declined. In tables 2-3-4 there are indexes of activity for the housing sector, for non-residential activity and for civil engineering. The negative economic trend is more visible in the **housing sector** where all countries, with the exception of the U.K., were in 1988 below the 1980 level. In the housing sector the decline has been accompanied by shifts from new buildings to renovation and maintenance activity (Commission of The European Communities, 1986). As it is possible to see in Fig. 1, in all of the four countries where data are available the volume of production of housing renovation increased while that relative to new housing diminished.

In the non-residential construction sector the slowdown was more limited and in all of the countries, with the exception of Italy and Belgium, the volume of activity in 1988 was higher than in 1980. This is especially true for the United Kingdom, where the increase was 62% between 1980 and 1988. In civil engineering, the situation is more diversified among the countries considered, due to different governmental policies. In France, Germany, and Italy, after the downturn of the mid-eighties, the volume of activity is going back to the previous level. In Spain, instead, this sub-sector has grown continuously, much more than the others. In Belgium and the U.K. the decline has continued since 1980, although in the U.K. it is not substantial and it contrasts with the growth of the construction sector in general.

Declining activity had important consequences on employment levels. A decline in **employment** has occurred in all countries examined. The weight of the construction sector in terms of total employment in 1985 varied from 4.6 per cent in the U.K. to 7.5 per cent in Spain to 9.2 in Italy. Together in the six countries considered here, the construction sector was 8.2 per cent of total employment in 1977 and 6.4 in 1985. As a percentage of the industrial employment, construction was 18 per cent in 1977 and 17.2 in 1985. In considering the decline of employment in the individual countries, it is possible to see in table 5 and fig. 2 that the largest decline has taken place in Spain (-43.1 per cent between 1977 and 1986) followed by Belgium (-36.4 per cent), France (-27.1 per cent), U.K. (-22.6 per cent), Italy (-22.8 per cent between 1975 and 1985) and the Federal Republic of Germany (-17.5 per cent). In all the countries considered, the percentage or even the absolute number of white collar employees has increased. Compared to other industrial sectors, this percentage of white

collars is still small but their growing number has generated more attention to their problem in collective bargaining.

The decrease in the number of employed workers naturally caused an upsurge of **unemployment** in the sector. In table 6 it is possible to see the rise in the number of unemployed in the countries studied here (the sources for this information combines data from ILO (Yearbook of Labour Statistics 1987 and EUROSTAT).

In Belgium in 1983 unemployment was 3.2 times the 1976 level (from 21,900 to 65,420). Subsequently, the level has been declining (to 35,200) only because the unemployed left the sector; but in 1987 the number of unemployed was still 60.7% higher than in 1976. In Germany the unemployed have also more than doubled between 1976 and 1984. After that peak year, there has been a decline of 22.2%. In France, the annual series to be examined are more limited and they show a decline in the number of people without work after 1984. In Italy, the unemployed have grown continuously and in 1986 they were 1.8 times the level reached in 1980. In Spain as well, the number of unemployed has increased and in 1984 it was 3 times the 1976 level. In the years after 1984 the favourable economic picture for construction caused a decrease in the unemployed, which has continued up to the current moment. In the U.K. there has been an increase in the number of unemployed, but the comparative data available stop in 1982.

Not all the people that were without work stayed in the sector, and the active population (employed+unemployed) shrank in all countries. In Belgium -27 per cent between 1976 and 1986, in Spain -23.2 per cent between 1977 and 1985, in Federal Republic of Germany -12.8 per cent between 1976 and 1986, 11.2 per cent in France between 1983 and 1986

and 14.6 per cent in Italy between 1980 and 1986.

The decline in employment has had an impact on the **foreign workers** that work in construction (about 11 per cent of employees in construction and 12.4 per cent of all foreign workers in 1985). The percentage of foreign workers in construction has remained the same over all of the six countries studied. In other words the decline in employment did not affect specifically foreign workers. As it is possible to see from table 8, there are slightly different trends in various countries. As a result of the changes in Germany, the relative weight of foreign workers in construction decreased from 12 to 9.3 per cent; the same happened in Belgium, where the percentage went from 12 to 10.6; in France there has been a slight increase of the weight of foreign workers from 19.7 to 20.4 per cent. In Spain, and even more so in Italy, foreign workers do not play a significant role in construction.

Female employment has always been minimal in construction. There were only 26,500 female employees in 1975 for all countries (for Italy there are no data in the international sources used in this section); in 1985 their number had increased to 35,700 (+5.7 per cent in absolute value). As result of those changes, female employees were 6.1 per cent of all employees in 1976 (not counting Italy) and 8.7 per cent in 1985. It is worthwhile to notice that female employment varies a lot among countries. For instance in 1986 it was 12.2 per cent in the U.K. and only 2.4 per cent in Spain; this means that female employment in construction can be increased from the current level.

Another important development in the employment arena is the increase in the percentage of **self-employed**. This is true for all the countries considered with the exception of Germany, where the change is

insignificant. In Belgium and France, the proportion of self-employed in the sector went from 14 per cent to 21 per cent, in Italy from 19 per cent to 25 per cent and in the United Kingdom from 20.7 per cent to 31.4 per cent.

The number of **part-time employees** has slightly increased (less than one per cent increase as an average). In 1985 part-time workers according to OECD (Employment Outlook 1987) represent as little as 3.2 per cent of construction workers in Belgium, 6.2 in France, 7 per cent in Italy and 6.2 per cent in United Kingdom.

Another important trend in all the countries examined is the decrease in the **average size** of the firm operating in construction. In certain sectors of the construction sector, for instance in civil engineering, average size is larger, but the overall trend toward smaller units holds for all the construction activity, as is shown in detail in the country reports.

In terms of **wage** development, the first data to be considered are the average gross hourly earnings of manual workers in construction furnished by EUROSTAT. The rate of change of wages is obviously influenced to a large extent by different inflation levels in each country. It possible to see in table 9, that **consumer price indexes** had a very different trend; for instance, the average yearly increase in the period 1976-87 was 3.3 per cent in Germany and 14.1 per cent in Spain. Different inflation rates had a great impact on wage differential among sectors, and among different professional groups within each sector that will be examined in greater depth in each country report.

In table 10 it is possible to see how the construction sector performed in comparison with the manufacturing sector from 1972 to the most recent year available, when the gross **average hourly earning** in

current prices for manual worker is considered. With the exception of Italy, wages in construction have lost ground compared to manufacturing. In Germany construction wages were 13.9 per cent higher in 1972 but 0.2 per cent less in 1988. In Belgium the 2.3 per cent advantage became a 2 per cent disadvantage in 1987. The same happened in United Kingdom (from +4 per cent to -2.6 per cent). In France wages were slightly lower in construction (-0.3 per cent) in 1972 and the difference increased to -1.8 per cent in 1987. In Italy, instead, wages went from -2.5 per cent in 1972 to +10.8 per cent in 1985. For Spain, construction had wages that were 4.5 per cent lower in 1979 and -11 per cent in 1985 (ILO 1987).

Another useful indicator is the **rank** of average gross hourly earnings among all the industrial sectors (Nace classification). Table 12 shows the relative rank in 1978 and 1985. The number of sectors is not exactly the same for each country, but the relative rank has been used to form an index with the range 1-50 for all countries. In this index we can see that the sharpest decline happened in Belgium -11.1 per cent, followed by France, Germany and United Kingdom. In Italy the construction wage increased its score +2 per cent and this confirms what was said when the sector was compared with manufacturing.

Changes in nominal trends do not give information about the **real wages**. For this purpose wages have been deflated by the price increases. In table 11 are reported average gross hourly earnings for manual workers for the construction and industry for the period 1980-1987 in constant 1980 prices. In real wages increases were lower than in the industry as a whole. In some countries, like Belgium, the decrease was 10.5 per cent in real wages in construction and 4.5 per cent in industry. In France and United Kingdom the increases in construction were respectively 7.1 per

cent and 10 per cent.

As will be shown in the country reports, the relationship between earnings in construction and other sectors is worse when weekly or yearly earnings are considered instead of hourly ones. The causes are to be found in the lack of continuity in the employment relationship and in hours of work offered.

Direct wages are only a part of **total labor cost**. As a trend in all countries considered, direct wages are a decreasing part of total cost. Table 13 shows the breakdown of total labor cost for selected countries in 1984. The proportion of direct wages is highest in the United Kingdom (74.8 per cent) and lowest in Belgium 53.7 per cent and in Italy 49 per cent.

For the purpose of comparison among different countries, in table 14 there are average hourly labor costs (blue and white collars) in ECU. Unfortunately the last year for which the data for all countries are available is 1984. In that year in Germany, labor costs were 14.5 % higher than the average; in Belgium 8.6% higher; in France and Italy around the average; while in the U.K. 21.5% less.

In terms of **hours of work**, in all the countries examined there has been a trend toward a decrease in the number of hours worked, as it is possible to see in table 15 for weekly hours and in table 17 for yearly hours. Hours of work have diminished in part because of contractual regulations and in part because of economic reasons, and from the data available it is not always possible to separate the two effects. For instance, in the reference week reported by EUROSTAT, weekly hours between 1975 and 1984 decreased 3.2 per cent in Belgium (from 40.7 to 39.4), and yearly hours of work decreased 13.7 per cent (from 1609 to

1388). The weekly hours of work are more similar in 1986 among the countries considered in Table 16 (coefficient of variation is .022, in 1975 it was .038; the coefficient of variation is obtained by dividing the standard deviation by the mean).

In terms of **vocational training**, there are no readily available comparative data on the type and amount of activity that is performed in each country. An analysis on the equivalence of skills, diplomas and certificate for skilled workers was prepared by the Center for the Development of Vocational Training (CEDEFOP 1983, 1988) in order to facilitate the process of mutual recognition. Without the latter, the free movement of persons and their freedom to provide services within the community is impaired because member states require proof of theoretical and practical proficiency.

In each country there is a large variety of institutions that promote vocational training and they will be examined in detail in the country report. Private institutions managed together by the employers and unions exist in all countries (except Spain). To the activity undertaken by them, one should add vocational training performed in public institutions and the more traditional apprentice programs. The fall in employment and especially in dependent employees has reduced the resources available by social partners and has diminished the opportunities for training. To these difficulties one should add the traditional poor image of the sector (United Nations 1985) and its declining rank among the economic sectors in terms of wages and work conditions, elements that do not favor the entrance of new generations into the sector.

A first introductory synoptic analysis of vocational training in many European countries was performed by CEDEFOP in 1981. A more detailed

analysis is that carried out by J. Petillion and Y. Glibert in 1984, related to the Federal Republic of Germany, France, Italy, the Netherlands, and Denmark. In all of the countries, the trainees have a special status and a different wage level established by collective agreement. The main differences among the countries are related to the link with the educational system. Another feature is that in all of the countries examined here, the employer associations promote training. In fact, given the mobility of construction workers, very few firms will find it advantageous to promote in-house training.

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Table 1 Index of Construction Activity 1976-87 (1980=100)

Year	B	D	F	IT	E	UK
76	95	90	109	93	113	98
77	98	91	108	93	111	98
78	95	93	104	94	106	105
79	100	98	101	96	102	106
80	100	100	100	100	100	100
81	77.1	95.3	98.9	98.6	97.5	90.5
82	72.8	91.7	94.3	92.1	98.0	91.9
83	68.3	92.4	90.0	93.1	95.5	95.8
84	64.2	93.1	85.8	93.1	90.3	99.2
85	64.0	87.2	85.6	92.5	90.7	100.2
86	65.3	88.9	87.7	93.2	95.3	103.0
87	68.8	88.7	90.7	92.0	101.9	110.0
88*	73.3	91.9	95.8	93.0	111.1	120.4
89**	75.2	92.8	95.8	94.1	120.0	123.4

legenda: * to be revised **forecast

B = Belgium, D= Federal Republic of Germany, F = France, It=Italy, E=Spain,
UK=United Kingdom

Source: 1976-1980 Construction Statistics Yearbook
1980-1989 Fédération International Européenne de la
Construction (October 1988) Rapport 23

Table 2 Index of activity in the housing sector (1980=100)

Year	B	D	F	IT	E	U.K.
1980	100.0	100.0	100.0	100.0	100.0	100.0
1981	57.5	94.5	97.9	99.9	93.0	86.0
1982	54.2	89.7	94.5	94.9	88.3	87.6
1983	52.4	93.8	89.6	98.8	84.8	97.5
1984	51.2	94.5	85.5	99.6	79.7	94.4
1985	53.9	83.9	83.6	97.7	80.5	92.5
1986	54.7	82.1	82.9	96.0	84.5	97.3
1987	57.1	80.9	83.8	92.6	90.5	104.4
1988*	62.2	84.5	86.7	93.4	98.6	113.1
1989**	64.1	86.6	86.6	93.9	106.5	113.1

legenda: * to be revised **forecast

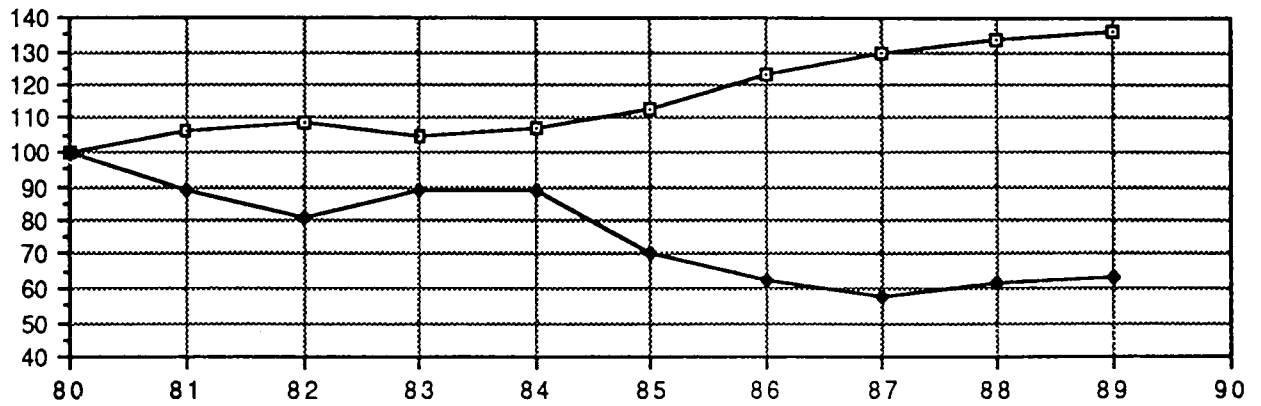
B = Belgium, D= Federal Republic of Germany, F = France, It=Italy, E=Spain,
UK=United Kingdom

Source: Fédération International Européenne de la Construction (October
1988) Rapport 23

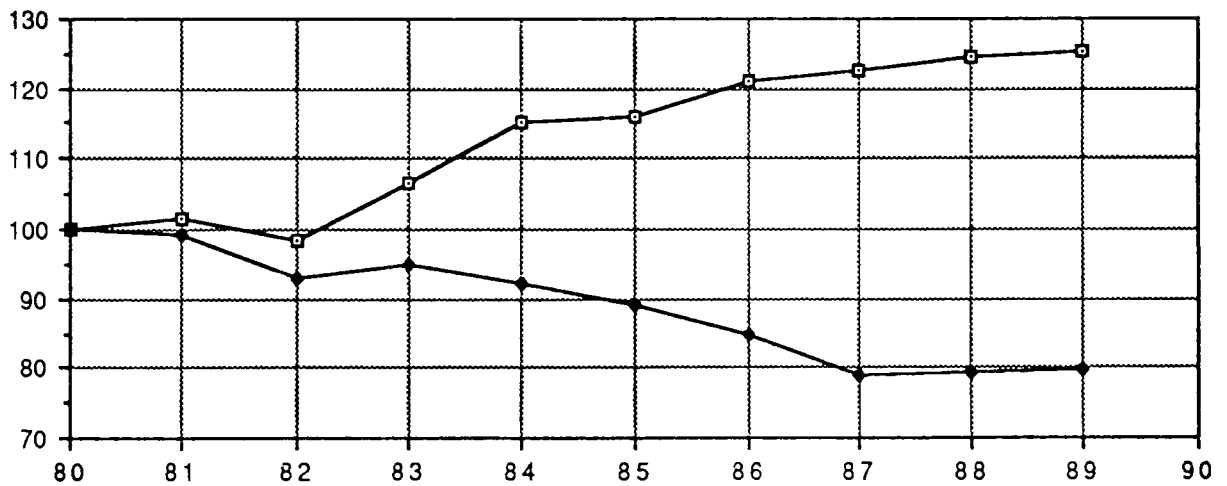
**Fig. 1 Volume of activity in renovation and new housing
1980-1989**
1980=100

□ Renovation
◆ New Housing

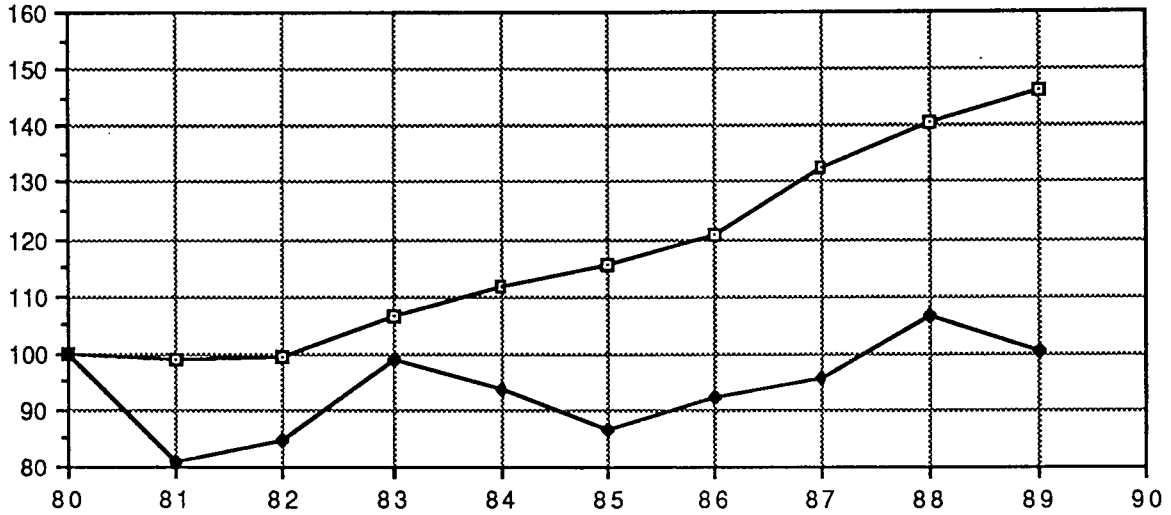
Federal Republic of Germany



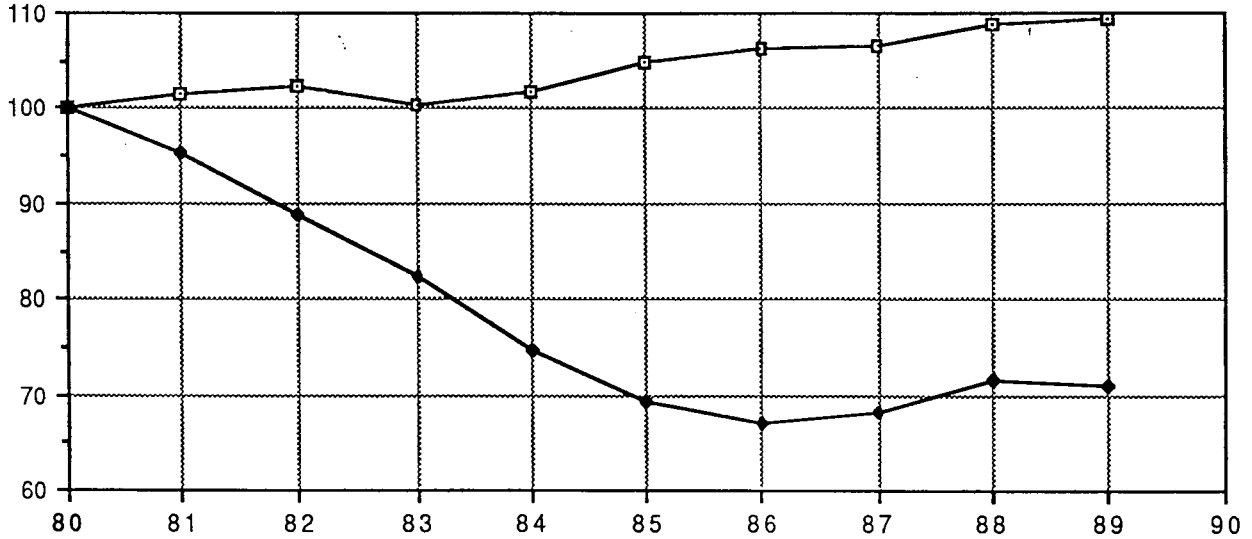
Italy



Great Britain



France



Source: Source: Fédération International Européenne de la Construction (October 1988) Rapport 23

Table 3 Index of activity in non residential construction activity
(1980=100)

Year	B	D	F	IT	E	U.K.
1980	100	100	100	100	100	100
1981	86.7	97.8	101.9	96.7	95.0	94.6
1982	85.5	95.9	97.2	90.5	92.1	97.6
1983	83.3	95.0	95.0	85.4	87.5	96.4
1984	79.2	94.5	92.4	83.6	84.0	108.4
1985	80.2	93.1	92.9	84.1	84.9	111.6
1986	84.4	97.9	96.0	86.4	90.0	124.0
1987	91.9	99.9	100.5	88.1	98.1	136.7
1988*	98.4	102.9	106.6	89.0	105.9	154.0
1989**	102.3	103.9	108.6	90.3	112.3	162.2

legenda: * to be revised **forecast

B = Belgium, D= Federal Republic of Germany, F = France, It=Italy, E=Spain,
UK=United Kingdom

Source: Fédération International Européenne de la Construction (October 1988) Rapport 23

Table 4 Index of activity in civil engineering (1980=100)

Year	B	D	F	IT	E	U.K.
1980	100	100	100	100	100	100
1981	98.3	92.7	97.1	98.0	112.0	93.5
1982	86.8	89.4	90.2	85.1	127.7	95.5
1983	73.3	83.4	84.4	89.5	137.9	97.3
1984	64.2	86.5	77.1	90.7	128.2	98.2
1985	56.5	86.3	80.5	92.8	125.7	92.7
1986	53.6	92.5	87.2	98.4	129.4	92.6
1987	51.7	90.6	93.1	98.6	134.6	92.6
1988*	-	91.6	101.8	100.6	148.1	92.6
1989**	-	91.6	98.8	103.6	162.9	92.6

legenda: * to be revised **forecast

B = Belgium, D= Federal Republic of Germany, F = France, It=Italy, E=Spain,
UK=United Kingdom

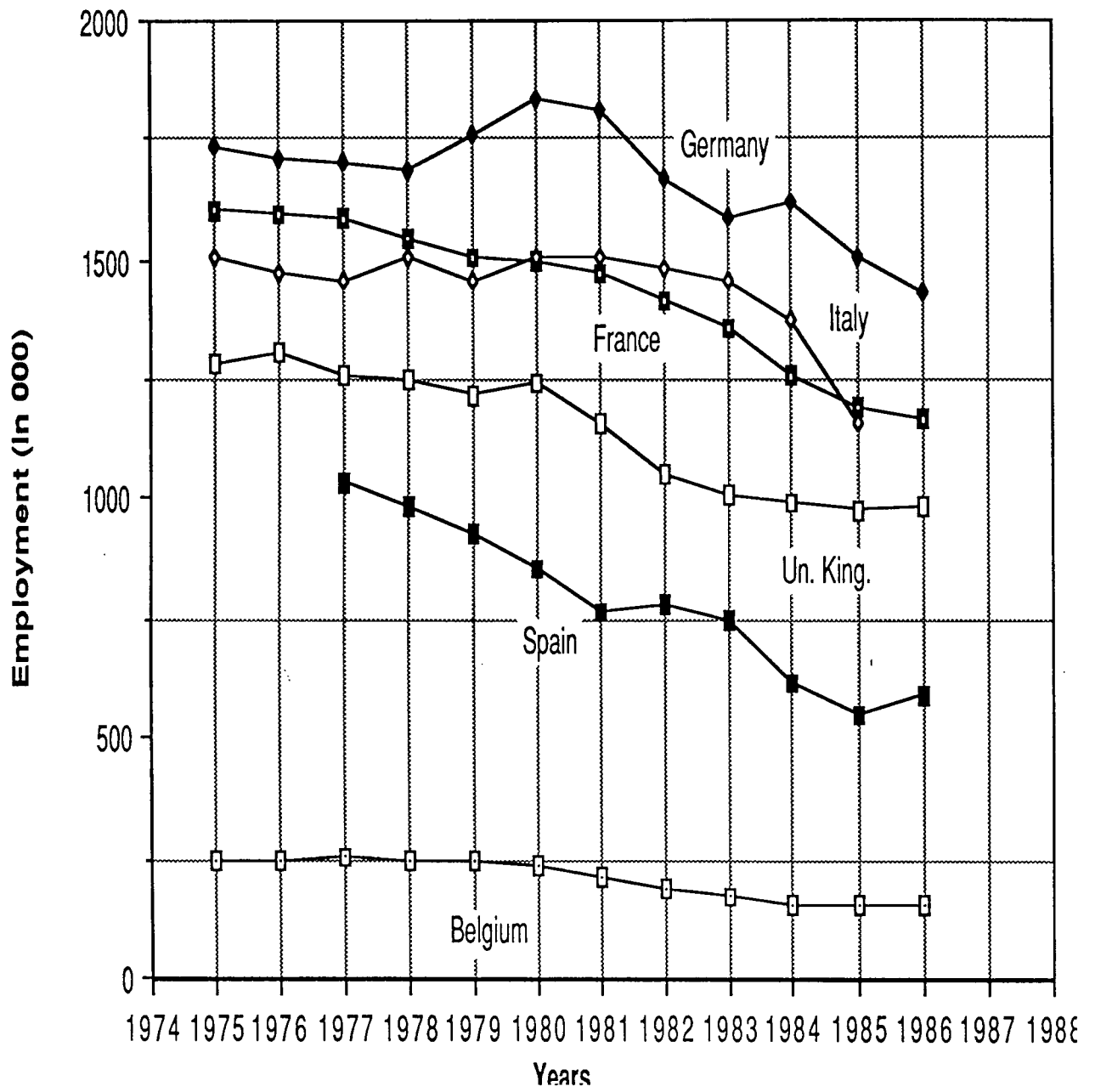
Source: Fédération International Européenne de la Construction (October 1988) Rapport 23

Table 5 Employees in construction (building and civil engineering-NACE classification see Fig. 1 in the next page)

Years	Belgium	Germany	France	Italy	Spain	Un.Kingdom
1975	247	1734	1607	1505		1280
1976	250	1714	1596	1477		1309
1977	252	1706	1589	1456	1039	1263
1978	248	1684	1544	1507	990	1254
1979	249	1761	1503	1454	932	1221
1980	240	1833	1497	1505	858	1245
1981	212	1807	1472	1506	763	1160
1982	189	1671	1419	1481	778	1050
1983	171	1590	1356	1453	750	1013
1984	157	1622	1256	1373	616	995
1985	156	1503	1190	1162	551	978
1986	157	1430	1171		591	991

Source: Eurostat Employment and Unemployment (1987)

Fig. 2 Employment in construction 1975-1986 (in Thousands)



Source Eurostat

Table 6 Unemployed in Construction (in thousands)

Year	Belgium		Germany		France
	ILO	Eurostat	ILO	Eurostat	Eurostat
76	21.9		78.7		-
77	25.96		68.6		-
78	29.02		51.9		-
79	28.1		37.5		-
80	33.43		48.2		-
81	50.42		95.2		-
82	60.98	63.6	170.8	160.2	-
83	67.42	70.4	169.9	157.9	235.7
84	65.7	65.7	187.1	175.3	277.3
85	52.72	47.3	178.6	168.4	257.5
86		41.5		134.8	243.1
87		35.2		124.5	231.3

Year	Italy	Spain	United Kingdom
	Eurostat	Eurostat	Eurostat
76	-	145.6	220
77	-	160.4	222
78	-	201.3	200.3
79	-	262	178.5
80	126	321.4	233.4
81	137	352.1	377.6
82	161.2	363.8	389.2
83	188.8	393.3	
84	202.3	437.2	
85	215	370.3	
86	230.7		

Source : ILO, International Labour Office, Yearbook of Labour Statistics (1986). EUROSTAT, Employment and Unemployment (1988), Registered unemployed according to previous profession.

Table 7 Percentage of employees and self-employed in construction in selected years

	total employment	self-employed %	employees %
Belgium			
1980	284,215	14.9	85.1
1984	197,092	20.9	79.1
Germany			
1975	2,043,000	8.2	91.8
1984	1,854,000	8.4	91.6
France			
1975	1,880,900	14.3	85.7
1984	1,578,900	21.2	78.8
Italy			
1977	1,969,000	19.0	81.0
1986	1,883,000	25.5	74.5
Spain			
1978	1,143,600	14.5	85.5
1985	1,122,500	19.0	81.0
United Kingdom			
1975	1,746,000	20.7	79.3
1985	1,491,000	31.4	68.6

Source ILO: Yearbook of Labour Statistics. For United Kingdom, Housing and Construction Statistics

Table 8**Foreign Employees in Each Country and in Construction in selected years**

Belgium	1980	1984	1985
total (000)	213.1	191.4	187.0
contruction (000)	28.9	16.6	16.6
% of construction over total	13.6	8.6	8.9
%of foreign workers among employed in construction	12	10.6	10.6
 France	 1981	 1984	 1986
total (000)	1231.5	1259.7	1172.5
contruction (000)	290.2	254.9	239.1
% of construction over total	24	20.2	20.4
%of foreign workers among employed in construction	19.7	21.4	20.4
 Federal Republic of Germany			
	1980	1985	1986
total (000)	2040.7	1555.3	1546.5
contruction (000)	219.9	141.6	133.3
% of construction over total	10.9	9.1	8.6
%of foreign workers among employed in construction	12	9.4	9.3

Italy

	1983
total (000)	57
contruction (000)	.5
% of construction over total	.008
%of foreign workers among employed in construction	.0003

Spain

	1981	1983
total (000)	61.2	57.1
contruction (000)	2.7	2.8
% of construction over total	4.4	4.9
%of foreign workers among employed in construction	.004	.004

United Kingdom

	1981	1985
total (000)	833.4	820.9
contruction (000)	73	66.
% of construction over total	8.7	8.0
%of foreign workers among employed in construction	6.3	6.8

Source : Eurostat, Employment and Unemployment (1988)

Table 9 Consumer Price Index 1976-86 (rate of change over the previous year)

Year	B	D	F	IT	E	UK
76	9.2	4.5	9.6	16.8	17.7	16.5
77	7.1	3.7	9.4	17.0	24.5	15.8
78	4.5	2.7	9.1	12.1	19.8	8.3
79	4.5	4.1	10.8	14.8	15.7	13.4
80	6.6	5.5	13.6	21.2	15.5	18.0
81	7.6	6.3	13.4	17.8	14.6	11.9
82	8.7	5.3	11.8	16.5	14.4	8.6
83	7.7	3.3	9.6	14.6	12.2	4.6
84	6.3	2.4	7.4	10.8	11.3	5.0
85	4.9	2.2	5.8	9.2	7.8	6.1
86	1.3	-0.2	2.7	5.8	8.8	3.4
87	1.6	0.2	3.1	4.8	5.3	4.1
88						
Average Change						
76-87	5.8	3.3	9.3	13.5	14.1	9.6

Source OECD: Main Economic Indicators

Table 10.1

Average Gross Hourly Earnings of Manual Workers in Manufacturing and Construction. Nominal Trends in National Currencies (October of Each Year)**Belgium**

Year	Manufacturing	Construction
1972	88	90
1975	148	151
1978	191	203
1980	226	236
1981	248	255
1982	263	267
1983	276	277
1984	288	286
1985	298	295
1986	298	296
1987	305	299

Source: Eurostat: Earnings Industry and Services 1988

Table10.2**Federal Republic of Germany**

Year	Manufacturing	Construction	
1972	7.34	8.36	
1975	9.80	10.41	
1978	11.86	12.46	
1980	13.35	14.44	
1981	14.13	15.08	
1982	14.75	15.61	
1983	15.25	16.19	
1984	15.64	16.56	
1985	16.34	16.81	
1986	17.03	17.27	
1987	17.70	17.77	
1988	18.25	18.21*	*April

Source: Eurostat: Earnings Industry and Services 1988

Table10.3**France**

Year	Manufacturing	Construction
1972	7.47	7.45
1975	11.99	11.63
1978	17.49	17.35
1980	22.72	22.86
1981	26.14	26.4
1982	29.75	29.32
1983	33.56	33.21
1984	35.67	35.0
1985	37.75	37.08
1986	38.97	38.25
1987	40.65	39.91

Source: Eurostat: Earnings Industry and Services 1988

Table10.4**Italy**

Year	Manufacturing	Construction
1972	811	791
1975	1550	1564
1978	2278	3091
1980	3907	4321
1981	4846	5405
1982	5677	6174
1983	6579	7179
1984	7051	7895
1985	7802	8642
1986		

Source: Eurostat: Earnings Industry and Services 1988

Table10.5**United Kingdom**

Year	Manufacturing	Construction
1972	0.72	0.75
1975	1.26	1.29
1978	1.76	1.75
1980	2.37	2.49
1981	2.68	2.69
1982	2.92	2.92
1983	3.13	3.14
1984	3.41	3.41
1985	3.69	3.64
1986	3.93	3.88
1987	4.20	4.09

Source: Eurostat: Earnings Industry and Services 1988

Table 10.6**Spain**

Year	Manufacturing	Construction
1977	155	148
1978	198	190
1979	242	237
1980	285	256
1981	346	308
1982	399	356
1983	457	412
1984	514	468
1985	564	502

Source ILO, Yearbook of Labour Statistics (1987)

Table 11 Index of Average Hourly Earnings of Manual Workers in
Construction and Industry (Real Trends October 1980=100)

Construction (NACE 50)

Year	Belgium	F.R.Germany	France	Italy	Un. Kingdom
1980	100	100	100	100	100
1981	100.3	97.3	101.2	106.9	96.7
1982	95.5	96.0	102.8	104.3	98.3
1983	93.2	96.9	105.5	107.2	100.6
1984	90.9	97.0	103.9	107.7	104.1
1985	90.4	96.8	105		105.4
1986	89.1	100.3	106		109.1
1987	89.5	102.3	107.1		110.0
1988		103.9*	108.3*		

Industry (NACE B)

Year	Belgium	F.R.Germany	France	Italy	Un. Kingdom
1980	100	100	100	100	100
1981	101.7	98.5	100.8	106.1	100.4
1982	97.7	97.8	104.2	106	102.4
1983	96.7	98.4	106.7	108.6	105.2
1984	95.3	98.7	105.8	106.5	109.1
1985	95.0	100.8	106.8		111.6
1986	95.0	105.8	107.8		115.7
1987	95.5	108.8	108.9		118.0
1988		111.1*	110.2*		

*April instead of October

Source: Eurostat, Earnings 1988

Table 12 Relative rank of average gross hourly earnings of manual workers in construction in comparison with other sectors in selected years

	1978		1985	
	Rank	Number of sectors	Rank	Number of sectors
Belgium	14	45	24	45
F.R.Germany	19	51	23	51
France	27	47	31	47
Italy	14	50	13	50
Un. Kingdom	23	45	26	45

Standardized Rank based on 50 sectors for all countries

Years	1978	1985	Change
Belgium	15.6	26.7	-11.1
F.R.Germany	18.6	22.5	-3.9
France	28.7	33.0	-4.3
Italy	14.0	12.0	+2
United Kingdom	25.5	28.9	-3.4

Source Eurostat: Earnings (NACE Classifications)1988

Table 13 Structure of total labor cost in the construction sector in 1984 for selected countries (Manual and non Manual Workers, Establishments of 10 or more employees)

	B	D	F.	U.K.	IT.
Direct wages	53.7	60.0	54.6	74.8	49.0
Premiums and bonuses	7.9	6.1	4.2	0.9	5.4
Pay for days not worked	10.5	10.2	9.3	8.1	9.0
Pay in kind	0.1	0.1	0.7	0.1	0.1
Total Direct Costs	72.2	76.4	68.8	84.0	63.5
1) Legal and contractual costs	26.2	20.8	28.8	12.8	36.5
Others Costs	1.6	2.8	2.4	0.1	-
Total	100.0	100.0	100.0	100.0	100.0

B=Belgium, D=Federal Republic of Germany, F=France, U.K. =United Kingdom, It= Italy.

1) Total of Statutory and customary expenditure for social security.

Source: Eurostat, elaborated by Entrepreneurs de Construction de la Communauté

Table 14 Average Hourly Cost of Employees in Construction (blue and white collar) in ECU

Year	Germ.	France	Italy	Belgium	Unit.King.
1975	5.47	3.93	3.55	6.03	2.96
1978	7.86	5.93	5.06	8.99	3.54
1981	10.12	8.54	7.94	11.09	6.96
1984	12.91	11.16	11.59	12.24	8.47
1985	13.15			12.96	8.85
1986	14.26			13.70	8.38
1987				13.94	8.61

Source: Eurostat: Earnings, Industry and Services (1988)

Table 15 Hours of work per week in construction

Years	76	77	78	79	80	81	82	83	84	85
Belg.	37.2	37.1	37.1	37.3	35.6	33.4	32.2	34.9	33.5	35.7
Germ.	41.6	41.1	41.6	42.4	41.3	41.3				
France	44.6	42.3	42.5	42.2	42.0	41.6	40.2	39.9	39.7	
Italy**	7.88	7.85	7.82	7.83	7.85	7.85	7.80	7.82	7.80	
Spain	43.2	42.5	41.3	41.4	41.4	40.7	39.7	38.6	38.0	38.9
U.King.*	44.3	44.7	44.9	44.9	44.0	43.8	43.8	43.6	43.3	44

*Males, full time workers on adult pay

** per day

Source ILO: Yearbook of Labour Statistics 1986

Table 16 Hours worked per employee during a reference week

Year	Belgium	Germany	France	Italy	Unit. Kingdom
1975	40.7	41.5	43.9	42.0	44.5
1983	39.1	40.8	40.0	40.9	41.5
1984	39.4	40.8	40.4	40.3	41.1
1985	39.3	41.0	40.4	40.1	41.4
1986	39.4	41.1	40.2	40.2	41.7

Source Eurostat Employment and Unemployment (1988)

Table 17 Hours worked during the year per employee in construction*

Year	Belgium	Germ.	France	Italy	Unit. Kingdom
1972	1763	1826	2126	1584	2176
1975	1609	1717	1988	1569	2121
1978	1465	1715	1881	1643	2092
1981	1424	1639	1817	1634	2007
1984	1388	1658	1710	1723	1976

Source Eurostat: Employment and Unemployment (1988)

Table 18 Hours worked during the year per employee in industry*

Year	Belgium	Germ.	France	Italy	Unit. Kingdom
1972	1790	1799	1985	1705	1878
1975	1612	1721	1860	1550	1915
1978	1593	1759	1818	1684	1928
1981	1552	1685	1771	1675	1885
1984	1537	1692	1682	1728	1880

Source Eurostat: Employment and Unemployment (1988)

* Average number of hours worked during the year (manual and non manual workers) in establishments with 10 or more employees. Weighted average of the annual hours actually worked by manual workers and the annual contractual hours for non-manual workers. Contractual hours are hours fixed by law or under collective agreements.

Belgium

Economic Activity

As it possible to see from table 1 in the introduction, the economic activity in the construction sector in Belgium has been declining for many years (since 1980) and only in 1985 was there a reverse in the trend, which has continued in subsequent years (+2.2 per cent in 1986 and an estimate +3 per cent in 1987 and 1988). In terms of volume of activity from 1980 to 1985, there has been a decline of 25 per cent. If we consider the formation of fixed capital in current money the decline is 35 per cent and the value added in constant 1980 prices dropped 27 per cent from 1980 to 1985. In the same period the contribution of the construction sector to the GNP went from 7.6 per cent to 5.2 per cent.

If the individual components of the construction sectors are analyzed based on information published by the Ministère des Affaires économiques (1986), we can see that in the housing sector between 1980 and 1984 there has been a decline of 38 per cent. New housing declined 48 per cent, and particularly social new housing (which was about 25 per cent of all the new housing in 1980) plummeted 81 per cent and in 1980 it was only 4.4 per cent of new housing. Renovation and maintenance instead experienced a growth of 25 per cent, but it constituted only 23 per the total residential construction. In civil engineering, the effect of budget restraints were felt and the drop has been of 33 per cent (1980-1984). Private non-residential activity has fallen only 8 per cent for the same years.

In most recent years, in the housing sector the decline of activity has stopped. There was a reversal in the trend in 1985 and in the following

year there has been a increase of 2 per cent but the current activity is much below levels reached in 1980. In non-residential activity, the ups and downs have continued up to more recent years. This section of the construction activity has increased its role, and in 1986 represented 47 per cent of all investment. In civil engineering, the decline has instead continued until 1986 due to budget constraints (Conseil Professionnel de la Construction: 1987b).

Employment

The economic difficulties of the sector had an impact on the number of firms operating. Between 1980 and 1985 there has been a decline of 14.8 per cent of firms operating in Belgium. Their decline is spread evenly among the types of activity (see table 1). In this period a large number of enterprises were also created, but their number was smaller than the number of firms disappearing. Turnover is very high, especially among small firms, and according to the Ministère des Affaires Economique (1986) half of the firms that existed in 1976 had been replaced by 1984. In terms of employment, there has a been a decline of 35.5 per cent. This decline has particularly adversely affected the building activity (both residential and non residential), where the decline was 41 per cent (see table 1); in installation the decline was 19 per cent and in finishing 25 per cent.

The decline has a different impact on firms according to their size. As a consequence, employment in firms with less than 50 employees increased the share of total employment from 55.1 per cent to 64 per cent.

While in 1980 firms with less than 10 employees had 24.1 per cent of employment, in 1985 the share was increased to 31.2 per cent (see table 2).

The average number of employees is also different according to the type of activity. Overall, the average size went from 10 employees to 6.7; but in civil engineering firms had 27 employees in 1980 and 19.8 in 1985.

The decline in employment was stronger among blue collars than among white collars. The former group lost 36 per cent while the latter lost 29 per cent. In 1985 white collars constituted about 11.6 per cent of all dependent employees. Female employees in Belgium, as elsewhere, constitute only a small fraction, 3.8 per cent in 1985. Foreign employment has instead always been important in the construction activity. Foreign workers in construction were 13.6 per cent of the whole total foreign population and it constituted 12 per cent of the employees in construction in 1980. After four years, the number declined from 28,900 to 16,600, and foreign construction workers were 8.6 per cent of all foreign workers and 10.6 per cent of employment in construction (see table 8 of the introduction).

The drop in employment also changed the composition of the sector in another respect. In 1980 there were 321,262 active people in construction; 74.7 per cent were dependent employees, 14.8 were independents and employers and the remaining 10.4 were unemployed. Because independents and employers decreased much less than the average in 1985 they made up 18.4 per cent of population active in construction (see table 3). Among the 41,211 independents in the construction sector in 1985 74.9% work full time in construction, 12.7% consider

construction only a complementary activity, 12.4% are helpers.

The decline in employment caused an upsurge in unemployment that rose between 1980 and 1985 from 33,428 to 55,724 (+57.7 per cent). Because the unemployed figures are smaller than the total loss of employment, there are about 62,094 people or 19.3 per cent that have left the sector since 1980. According to an estimate done by the Mac Kinsey Report and quoted in Ministère des Affaires Économiques (1986), the loss of employment could be attributed to the following causes: 66 per cent reduction of demand, 23 per cent by the loss of the activity within the construction sector (in other words, other economic sectors entered successfully into the construction market), 18 per cent by the increase of productivity (the overall increase in productivity could have been greater without the employment shift to types of activity such as renovation, which are more labour intensive). The reduction of working hours (cf. table 5) had a compensatory effect and increased employment by 7 per cent.

Participants in Industrial Relations

On the employers side, the main organization is the National Confederation of Construction (Confédération Nationale de la Construction CNC) that is formed by 18 national professional federations and 24 regional interprofessional chambers. The CNC is part of the Federation of Belgium enterprises (Fédération des entreprises de Belgique, FEB) and has a membership of 13,000 employers.

On the employees side, in Belgium there are two main labour organizations: the Christian Union of the Workers in Wood and Construction, (Central Chrétienne des travailleurs du bois et du bâtiment, CCTBB or Christelijke Centrale der Houtbewerkers en Bouwarbeiders) that is part of the Confederation of Christian Unions (Confédération Des Syndacats Chrétiens, CSC, or Algemeen Christelijk Vakverbond, ACV) and the General Union (Centrale Général CG or De Algemene Centrale) which is part of the General Federation of Labor of Belgium (Fédération Générale du Travail de Belgique FGTB, Algemeen Belgisch Vakverbond, ABVV). There is also a small Confederation of Liberal Unions of Belgium (Centrale Générale des Syndicats Libéraux de Belgique, CGSLB) but it does not play a significant role in construction. The unionization rate among the 150,000 construction workers is about 95 per cent (55 per cent represented by CCTBB/CSC, 34 per cent by CG/FGTB and 6 per cent by CGSLB).

Collective agreements can be reached in two ways: 1) among the social partners, for instance at the firm level, and in that case they apply only to the employers that are part of the organization that has signed the agreement; 2) through a special Commission formed by an equal number of employers and union representatives and headed by the ministry of Labor (National Labour and Industry Committee for the Construction Industry). In order to reach an agreement, unanimity is needed. Agreements signed in the commission can be extended by government executive order and afterwards they apply to the entire sector.

Wages

The first element that will be considered is the average gross hourly earning for manual workers as reported in Eurostat. As was shown in the introduction, the construction sector had a 4 per cent lead from the early seventies until the early 80's, but afterwards has lost ground and in 1986 it is 0.7 per cent less. In terms of rank, the average gross hourly wage in construction slipped from the 14th to 24th place between 1978 and 1985. In constant 1980 prices, wages in construction increased 42 per cent from 1972 to 1980, but since then and until 1985 there has been a 10 per cent decline in constant 1980 prices. If we consider the national data for the categories listed in table 2 the decline, for the same years (1980-1986) in 1980 prices is slightly lower: labourer -7.4 per cent, specialized -8.8 per cent, qualified 1-9.3 per cent, qualified 2 -9.7 per cent. As an average in Belgium, wages constituted about 51 per cent of total labor cost in 1984, down from 56 per cent in 1978. Total labor costs have increased more than direct wages. For instance, in constant 1980 prices between 1978 and 1984, wages have decreased 5.6 per cent but total labor costs have increased 3.5 per cent. As it is possible to see in the introduction, in Belgium total labor costs measured in ECU is the highest in 1984 among the countries considered after Germany. In 1987, the social charges are about 110.59 per cent of hourly wages. The charges are slightly different according to the type of construction activity, the size of enterprises and the employee category.

In the construction sector there is also a special fund (Fond de Sécurité d'existence) that is made up by 26 per cent of wages and is used

for expenditures, such as annual vacations, additional insurance for partial unemployment and early retirement.

Blue collars for wage purposes are divided into 4 categories. Table 4 reports the hourly wages at the end of each year from 1979 to 1987. In 1979 the wage differential among the categories was the following: 100-108-122-125. In 1987 the differential was 100-108-115-123.

Blue collars are distributed in the following way among the various categories: laborer 15.32 per cent, specialized 18.20 per cent, qualified first level 36.24 per cent, qualified second level 29.29 per cent, contremaitre and chefs d'equipes (foreman) 0.95.

Wages are also slightly different according to type of activity. For instance in installation wages are 4.5 per cent less than the average. Because construction activity is performed in a large variety of environments, there are increases when work is performed in difficult or dangerous situations.

In terms of wage security for periods not worked due to bad weather or frost, the Fond de Sécurité d'Existence pays a wage supplement that guarantees nearly 100 per cent of wages for the established days. In case of dismissal the employer has to give notice: three working days when seniority is less than six months, fourteen days for seniority between six months and three years, twenty-eight days when seniority is between 3 and 20 years and 56 days when seniority is longer than 20 years. If the employer does not give notice than he has to pay compensation equivalent to the number of working days contained in the advanced notice they are entitled to. there is also a special allowance (20 days when there is less than six months of seniority and 12 days for seniority between 6 months

and 3 years). In case of firm bankruptcy special Funds established by law (Fonds de Fermeture des entreprises) are available. The funds serve as a substitute for the employer when the latter is unable to pay the employees' wages due to bankruptcy. In case of unemployment the Fond de Sécurité d'Existence also pays an extra allowance.

In case of sickness the employer pays for blue collars the normal salary for the first 7 days, from the 8th to the 14th 86.97% of the normal salary, from the 15th to the 30th 26.97 per cent. The payments are not due if there is less than one month of seniority in the firm, and if the sickness is a relapse within 14 days after the resumption of work. After the 14th day of sickness the worker is eligible for the allowances established by law. In case of white collars the employers pay the normal salary for the first month, afterwards he/she will be eligible for the legal allowances.

Wages in construction were increased automatically according to the quarterly changes in the consumer price index, but in recent years there have been several changes. During 3 months in 1982 the wages were blocked. During the period June 1982 August 1983 wages were increased on a lump-sum basis. From August 1983 wages have been adjusted every 4 months instead of the previous 3 months, and the index was formed by the average of the indexes of the previous four months. This means that there is a delay in the wage adjustment process. Moreover, in the years 1984, 1985 and 1986 and up to August 1987, 2 per cent of the increases due to the indexation were cut and given to the State. Since August 1987 in the construction sectors wage indexation is back to normal. Adjustments are made quarterly but the index maintains the built-in delay.

Hours

In Belgium the maximum number of weekly working hours permitted by law is 40. The collective agreement has fixed the limit at 38, distributed in five days. This number is achieved on a yearly basis with days off at the end of the December. In periods of increased activity (usually the summer), the workers can add one hour a day up to 64 hours of work per year. To utilize these extra hours it is required that the union representatives agree to it. In general, they have agreed not to oppose to it. Those extra hours are not paid the overtime rate but in the subsequent six months there are compensatory days off and at that time the extra hours worked are paid. In Belgium as elsewhere there are regulations for shift work and for work that is preparatory for other activity. In case of overtime (when work exceeds 9 hours a day or 40 hours in a week) the extra hours are paid 50 per cent more (100 per cent if it is Sunday). Overtime hours cannot be more than 65 hours in a three month period.

The estimated distribution of hours within a year is the following:

weekly working time	38
daily working time	7:36
maximum hours in year (52 x 5 x 7.6)	1976
holidays (4 weeks x 38 hours)	-152
public holidays (10days x 7.6 hours)	-76
sickness indemnified by health insurance fund (approx.)	-82
guaranteed weekly wage (approximately)	-38
short absenteeism	-11.4
other reasons (approx.)	-7.6
bad weather stoppages (approx.) 44 days x 7.6	334
total worked hours	1275
average worked hours per week (1275:48)	26,56

Source: European Federation of Building and Woodworkers (1987)

In Belgium there has been an effort at favoring early retirement for workers that are at least 58 years of age and have a certain amount of time spent in the sector. Those that use early retirement cannot be re-employed unless their role is needed in the training of new employees. The cost for the program is provided by a fee paid by the employers at the "Fonds de Sécurité des Ouvriers de la Construction". The employers were also encouraged to replace the retirees with young workers. The agreement, however, did not have the impact hoped for.

Vocational Training

Since 1963 the main organization devoted to vocational training is the Belgian Foundation for Vocational Training in the Construction Industry (FFC -FVB), which was founded with contributions (0.30 per cent of wages) made by all the employers registered in the Social Security Administration. Afterwards all employers that are covered by the collective agreements are obliged to make the contributions. FFC is administered by representatives from the employers and the unions in equal numbers. According to FFC (1984), the main goals of this organization are: 1) to organize and finance training schemes for young workers and apprentices, 2) compensating for the loss of earnings incurred by those that are frequenting the courses, 3) making up the difference, if any, between the minimum wages fixed in collective agreements in construction and the allowances granted by the National Employment Service to employees that follow an accelerating training course, 4) running half-time training cycles for young workers that are paid according to the provisions made in collective bargaining. It is also important to mention that in an agreement signed in June 1978 it is established that the FFC is in charge of vocational training in the construction sector.

The FFC choice for youth training was to work within the existing framework of vocational schools and to promote the increase in the number of training programs in construction offered instead of creating an alternate, separate organization (P. Vanderlinden and Ph. Deplace 1988). The training covers the four basic building techniques. Courses in the construction trades are offered in the preparatory year of formation, in the

technical and professional secondary schools, and in remedial vocational school. The goal of the Foundation is, among other things, to assure that teaching materials and all the necessary equipment is available.

For adult training, the FFC work together with the National Employment Service (Office National de l'Emploi ONEm). FFC gives financial support to participants, has helped the establishment of certain courses (for instance site equipment operators and crane drivers), and contributes to the acquisition of up to date equipment for training.

Finally FFC has also the goal of informing people already in the labour market or future entrants about opportunities available in the construction sector.

In the secondary technical and professional schools that received FFC support there have been in 1986-87 141 courses, down from 213 in 1983-84; the total number of participants were 2,864, down from 6,487 in 1983-84 (Petillion and Gilbert 1987). In the courses offered by ONEm the number of participants in construction trades were 2,940 and constituted 13.7 per cent of all activity done by ONEm.

Another important avenue of training is the apprenticeship. In Belgium the number of apprentices has diminished in primary building trade from 4,584 to 3,133 (-31.7 per cent); in Finishing (parachevement) the number has declined also from 4,158 to 2,775 (-33.3 per cent).

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Table 1 Distribution of employers and employees according to type of activity in the construction sector in selected years

activity	1980		1985		A %
	Employers %	Employees %	Employers %	Employees %	
no specialization	1.2	7.0	1.0	5.0	-53.9
residential and non r.	34.4	50.0	34.7	38.5	-40.7
civil engineering	7.2	19.6	7.1	18.8	-38.3
installation	22.2	14.7	22.6	18.4	-19.0
finishing	35.0	16.7	34.6	19.3	-25.0
	100	100	100	100	
<i>numbers</i>	<i>24,143</i>	<i>241,662</i>	<i>20,567</i>	<i>155,881</i>	<i>135.5</i>

Legenda : A = Decline in employment in percentage from 1980 to 1985

Source: ONSS (1986)

Table 2 Distribution of employers and employees according to firm size in selected years

firm size	1980		1985	
	Employers %	Employees %	Employers %	Employees %
1-4	63.1	12.2	69.9	17.1
5-9	18.3	11.9	16.5	14.1
10-19	9.5	12.7	7.7	13.6
20-49	6.1	18.3	4.9	19.2
50-99	1.8	12.2	1.1	10.2
100-199	.7	10.3	.6	10.5
200-499	.4	11.5	.3	11.2
500 and over	1.0	10.6	.004	3.9
<i>number</i>	<i>24,143</i>	<i>241,662</i>	<i>20,567</i>	<i>155,881</i>

Source: ONSS (1986)

Table 3 Distribution of total population active in construction in selected years

year	total	unemployed	employed	independents & employers
1980	321,262 100	33,428 10.4	240,141 74.7	47,693 14.8
1985	255,461 100	55,724 21.8	155,651 60.9	47,086 18.4
Change 80-85 in %	-20.4	+57.7	-35.5	-1.3

Source: ONSS

Table 4 Hourly wages for blue collars categories 1979-1987

Year	Laborer	Specialized	Qualified I	Qualified 2
1979	181.0	196.3	211.6	227.0
1980	195.1	211.4	227.8	244.2
1981	213.4	231.0	248.6	266.3
1982	225.0	243.0	261.0	279.0
1983	236.4	254.6	272.8	291.0
1984	247.4	266.3	285.3	304.4
1985	254.9	274.4	294.0	313.7
1986	254.9	274.4	294.0	313.7
1987	257.1	276.7	296.4	316.4
1988	258.2	277.9	297.6	317.8

Source: FGTB

Federal Republic of Germany

Economic Activity

Table 1 shows the index of construction activity in 1980 constant D.M.. According to this indicator, construction activity peaked in 1980. Altogether in 1981 and 1982 there was a 8.5 per cent decline. In the following years the trend was reversed but growth was limited (1.7 per cent in 1983 and 1984 combined). In 1985 the decline brought the construction activity to the lowest level in 20 years. In the following years, there was a rise of 2 per cent in the index. In 1987 there were no positive change (-0.2%), but according to FIEC the positive trend has continued in 1988 (+3.5%) and the forecast for 1989 is +1 per cent (see table 1 in the comparative introduction).

If we look at the components in the construction industry, we find that the private non-residential sector follows the same trend as the total construction activity. The crisis periods in this sector, however, are less severe, and overall its share of the total has increased from 24.4 per cent in 1976 to 28 per cent of total activity in 1988. In the housing sector, there has also been a remarkable increase in renovation activity. It now constitutes 52 per cent of the housing activity and 40 per cent of total activity.

Despite the good performance of the overall economy in the country, there is still a large unused capacity in the construction sector, as it is possible to see in the graph, elaborated by OECD in order to measure the business climate (see Fig.1). Another aspect to be underlined is the drastic reduction of construction activity outside the country. The foreign activity started to increase in the early 1970 and in the period 1976-81 it averaged

9.8 billion D.M. Since 1981 there has been a dramatic decline mostly related to decline in OPEC countries, and in 1986 it was only 1.7 billion D.M.

(Baustatistisches Jahrbuch 1987: 41). The decline in foreign activity has increased the competition in the internal market and large enterprises are more willing to enter areas of activity that before were left to medium small firms. An effort to counter the economic crisis in the sector has not been made at federal level with anti-cyclical spending.

Employment

In the primary building trade (Bauhauptgewerbe), employment between 1977 and 1987 declined 18.06 per cent (from 1,167,800 to 984,800). In table 2 we find the percentages of main employed groups in 1977 and 1986. From table 2 it is possible to see the increase in technical and sales employees (from 11.9 per cent to 14.5 per cent) and the decline in the skilled and unskilled groups (from 21.8 per cent to 17.5 per cent). It is also important to notice the large percentage of craft employees and apprentices (57.9 per cent and 5.1 per cent respectively in 1986).

If we look at the distribution of enterprises according to size, there has been an increase in the smaller units (those with less than 9 employees went from 54.2 per cent of the total in 1976 to 59.1 per cent in 1986). If we look at the distribution of employment, the average firm had 21 employees in 1976 and 17 in 1986. Employees working in firms with less than 20 employees went from 25.2 per cent to 31.7 per cent of total.

In the construction sector there are also about 500,000 employees in the secondary building trade (Ausbaugewerbe) and about 400,000 in ancillary activity. The Statistisches Jahrbuch reported only firms with more than 10

employees in the secondary building trade, and in 1986 there were 11,295 such firms with a total of 279,815 employees (81 per cent blue collars); there are 4,439 firms with more than 20 employees with a total of 187,553 employees.

The decline in employment caused a surge in unemployment in the construction sector. According to Eurostat data, unemployment based on previous activity in the sector jumped from 45,000 in 1980 to 168,000 in 1985 (in the country as a whole unemployment went from 822,000 to 2,150,897) but in 1987 unemployment in the construction sector was 124,000 and the downtrend has continued. In the construction industry, there has been traditionally a large number of foreign workers (about 10 per cent of the total number of foreign workers). In 1980 in the construction sector there were 219,900 foreigners (12 per cent of employment) and in 1985 there were 141,6000 (9.4 per cent of employment); see table 10 in the introduction.

Participants in Industrial Relations

On the employers side, there are two main organizations. The General Association of the German Construction Industry (Hauptverband der Deutschen Bauindustrie, HDB) which represents mostly industrial, medium large firms and the Central Association of the German Building Trade (Zentralverband des Deutschen Baugewerbes, ZDB) which represents mostly small firms and artisan undertakings. The national associations are second degree associations and are formed by regional-craft associations in the HDB and functional (land) associations in the ZDB. In firms belonging to HDB there are about 300,000 employees in 1986 while in ZDB there are about

47,000 firms (the vast majority with less than 20 employees) with a total employment around 700,000 in 1986.

Both organizations sign the agreement. Historically, there has been cooperation with unions in an effort to stabilize employment, make work more attractive and improve social legislation.

On the union side, in construction as in the rest of the economy, employees are organized on an industrial basis. For all practical purposes, the only organization in construction is Industriegewerkschaft Bau-Steine-Erden, IGBSE, that is part of DGB. The other confederations that exist in Germany such as Deutsche Angestellten Gewerkschaft (DAG) do not play a significant role in construction.

According to the Statistisches Jahrbuch (1987), there are 485,055 union members in IGBSE (since 1976 there has been a decline of 3.8 per cent). Union members in construction are 6.2 per cent of total union members in the German Trade Union Federation (Deutscher Gewerkschaftsbund, DGB). About 9.7 per cent of all union members in construction are white collar employees, and they are also represented by IGBSE. Women constitute about 6.3 per cent of membership.

Other important institutions to be considered are the guilds and trade corporations that group together employers, artisans and apprentices. Those bodies have play a role in the ZDB in the opinion making process even though are not directly involved in collective agreement in the construction sector. In the following pages, the attention will be focused on the role played by unions on an industrial basis but it is important to keep in mind that a significant role is also played by craft organizations where trade union role is limited.

A well known feature of German industrial relations,

codetermination, is also present in the construction industry. All employees (in firms with more than five employees) have the right to elect Work Councils. In March 1988, they were present in 4,833 firms with 21,581 representatives for about 600,000 employees. Twenty two enterprises, that have more than 2,000 employees, apply the Co-determination Act of 1976, that establishes countervailing parity in supervisory boards.

Collective agreements are signed at the national level between trade union and employers associations. There are two types of agreements: (1) the collective wage agreements that are concerned with wages and regular supplements (renewed in general but not necessarily every year) and, (2) framework collective agreements which deal with all other issues and last between 2 to 4 years. National wage levels are a minimum that can be improved especially in large enterprises by workers' representatives at that level or by unilateral employer concessions. For this reason, there is a difference between actual and agreed upon wages.

In past decades, the relations between the social partners have been harmonious and in the sector there have not been strikes at the federal level in two decades. There is an arbitration system at national and regional levels that has been agreed upon for avoiding impasses in wage collective bargaining. At the national level, the agreement establishes that the union has to wait 35 days after the breakdown of negotiations and in this period a panel formed by employers and union representatives plus an independent chairman try reconciliation. If the proposal made by the arbitration panel is accepted by both parties, it becomes a collective agreement (Bayer et al 1983: 87). In 1986, the arbitration panel settled the wage collective bargaining.

In order to guarantee certain benefits despite labour mobility, in

Germany as in other countries there is a special fund that is administered together by trade unions and employers representatives.

Wages

If we look at the index of average gross hourly earnings in constant 1980 DM from 1980 to 1985 in the industry in general there has been an increase of 5.8 per cent while in the construction sector the increase was only 0.3 per cent . In terms of current DM, construction hourly wages were 4 per cent higher than the average industrial wage in 1978 and 0.8 per cent higher in 1986. In terms of rank wages, construction was 19th in 51 sectors in 1978 and 23rd in the same sectors in 1985 .

When the weekly, monthly or annual earnings are considered, the relations between the construction sector and the rest of the economy is more unfavorable (Grando and Moebus 1986) in part because of the lower number of hours of work available. It should be kept in mind, however, that the wages considered here are average for the entire blue collar sector without taking into consideration the effect on the average of variables such as skill mix, age structure, seniority, sex composition, firm size, or location. Probably with a regression model, all things equal, the wage level in construction will be on a higher rank because low seniority and small firm size reduce wage levels much more in other sectors than in construction, where there has been a constant attempt at overcoming those adverse effects.

Blue collars are divided in 7 levels but there are 8 levels of gross hourly rates that went from 13.88 DM to 19.27 DM in 1987.(100-139). For technical white collars there are 8 levels with a monthly gross salary that

goes from 5,306 DM at the top to 2,332 DM at the lowest level with a range 100-227 (Source: Baustatistisches Jahrbuch 1987: 58).

As mentioned before, in the construction sector there is a Fund that receives from the employers 21.1 per cent of total wages for the following purposes (in per cent): 12.05 for vacations, 2.2 for days off between Christmas and the New Year, 2 for vocational training, 1.05 additional pension funds, 3.8 early retirement. Altogether there are about 51,000 employers (with 980,00 employees) that contribute to the Fund.

Beyond what is agreed upon at national level, there are increases that are agreed upon at the enterprise level and tend to reflect labor market conditions. The wage drift can add up to 10 per cent to the national wage. If we calculate the coefficient of variation (standard deviation/mean) for the 11 regions listed in Eurostat, the value in the construction industry is 6.5 in construction and 4.9 in manufacturing.

When work is performed outside regular hours, there are increases over the basic wage. For instance for overtime 25 per cent, for night work 20 per cent, for work in holidays 75 per cent.

In the construction industry only a small and declining percentage of workers is paid by results, due to the high variety of building products. In case of payment by result the leading role is played by the work council at the firm level on the basis of a framework agreement signed by IGBSE at the national level in 1971 (Rahmentarifvertrag für Leistungslohn im Baugewerbe) and renewed ever since. When payment by result is used, it applies to a group of workers

In Federal Republic of Germany, as in other countries, there are premiums for work done in hazardous or special environments (for instance

tunnel, water, in high altitude) or when the work is performed away from the regular residence.

When work cannot be performed because of bad weather during the period between November and March, the blue collars receive from 63 to 68 per cent of their net income (63 per cent if they have no children and 68 per cent otherwise). There is also compensation guaranteed for reduction in available hours of work that provide benefits similar to those given in cases of work lost for bad weather. It should be kept in mind that those provisions are a supplement to the general social security system. In the construction sector, a small amount of pay that is linked to seniority affects also the amount of vacations. On a monthly basis about 52 DM (in 1983) is also paid for contributions to the capital growth made by the employees.

Besides the direct wages, an important part of labor costs is made up of indirect and social costs that are an increasing part of total labor costs. For example, for a worker in third level in 1970 the basic rate was 63 per cent of total labor cost while in 1987 it was only 50 per cent. In table 14 of the introduction it is possible to see that in Federal Republic of Germany the hourly total costs in ECU in 1984 was the highest after Belgium among five of the six countries considered in this study. The high level of total labor costs and the increased competition has enlarged the practice of legal sub-contracting (Werkverträge). For illegal worker leasing (Scheinwerkverträge) it is not easy to obtain figures because the law forbids in the construction sector the practice of work-lease for activity done by workers. Notwithstanding the legal requirement, in Germany as elsewhere there is still work in the construction sector done by workers that do not receive the legal benefits and often are not even regular residents.

Hours

Hours agreed upon in collective bargaining have not changed since 1982 (40 hours in five days). The maximum legal hours of work is 10 in a day and 60 in a week; only in very special circumstances the 10 hour limit can be exceeded. Theoretically there are 2,080 hours of work each year but actual hours of work tend to be around 1660-1688. According to Eurostat, the annual hours per employee were in 1984 1658 in construction and 1701 in manufacturing and 1692 for the industry as a whole. There are no different arrangements for various seasons but there are 7 days of holidays between December 25 and January 1.

The starting and ending time and breaks are decided together by the employer and the work council. Normal hours of work lost in certain days of the week can be compensated with prolonged hours of work (without overtime premium) in the same week. If an agreement for the distribution of the work hours cannot be reached at firm level, then the union representative steps in. Hours of work lost because of bad weather can be offset by work in the following 12 regular days; if regular hours are exceeded then overtime is to be paid. Work time can be longer for workers in charge of machinery and drivers, for security guards, and other special categories.

In order to alleviate the high unemployment in the sector, a policy of early retirement was started in 1984. In order to benefit from the provisions it was required to have an age of 58.5 and ten years membership in the building trade. The employees are guaranteed 75 per cent of gross income until regular retirement age is reached. 1988 is the last year in which the early retirement can be entered and it is unlikely that it will be

renewed in the future. 90 per cent of the program is paid from the Fund (4 per cent of wages are paid by employees for this program, 3.8 since 1989), for white collars the contribution to be made is 5.3 per cent of salary and the rest is paid by the employers. The program will be funded until 1995. Altogether 2/3 of the people that could have utilized the program (over 70,000) have done so in the eighties until 1984.

There are 26 working days of vacation, (23 for employees with less than 35 years of age) to this number 9 (in some regions 11) holidays not counting Saturday and Sundays should be added.

Vocational Training

In order to off-set past shortages of skilled manpower in the construction industry, starting in 1974 employers and unions have increased the numbers of trainees from an average of 20,000 in the early seventies (when there were only three apprentices per one hundred qualified employees) to 70,000 in 1982. Afterwards, however, there has been a sharp decline; at the end of 1986 the number was 54,400 and in 1987 43,500 . Particularly sharp was the decline of the number of trainees that entered the program in 1987 (10,300 versus 20,500 in 1984). Because the decline in employment has been severe, the rate of apprentices per qualified employee has increased from 10 to 11 per cent between 1980 and 1985.

In the present situation everybody agrees that there is a shortage of skilled personnel that will increase for demographic reasons and unattractive conditions in the sector, especially in terms of lack of continuity in employment. Today the average age of the working force is about 40 years but in the important group of foremen 50 per cent is 50

years or older.

The Federal Republic of Germany has one of the most comprehensive systems of vocational training in Europe (Sellin 1980). It is articulated in government operated schools, and apprentices programs. The law of vocational training of 1969 (Berufsbildungsgesetz) requires a contract between the enterprise and the apprentice (or parents when the apprentice is under 18). According to this contract, the apprentice has the obligation to follow the public vocational training schools for the theoretical items of training.

For the purpose of vocational training employers pay 2 per cent of wages to a fund that is administered together with the unions (Fromme 1987). According to the collective agreement of 1975 renewed in 1987 the fund provides: A) For apprentices in manual trades 11 months of wages for the first year and four for the second and holiday payment for all three years, plus 16 per cent of social security costs. B) For office and technical job apprentices: 12 months of wages for the first year, four for the second, plus 16 per cent of social security costs. For apprentices in the craft there is also payment for holidays C) The cost of attending the training centre and travel expenses.

In 1987 the total amount paid by the fund to the employers for training was 410 million DM (550 million DM in 1986), around 45 per cent of the whole cost involved in training. The Government shares some of the costs up to 15 per cent of the total.

According to the regulation of training in construction established in 1974 and confirmed in 1984 the apprentice program last three years. In the initial one, that is devoted to basic training and is the same for all the 14 manual crafts, there will be a total of 20 weeks for theoretical knowledge at

school and 20 weeks at the training center (there are 25 large training centers with about 200-500 places and 150 small ones with 50-75 places), the remaining 12 weeks (including vacations) are devoted to making the the apprentice familiar with his contracting firm. After the first year and a test, the apprentice will choose one of the main groups: overground work (Hochbau), civil engineering (Tiefbau) and finishing trades (Ausbau). In the second year the apprentice will spend about 8-12 weeks in the public professional schools, 13 weeks for practical training in the training centers and during the remaining half year he will accompany the skilled worker on the site. After this period it is possible to have a written and a practical test in order to be "generally qualified skilled worker." It is possible however to continue training for another year in order to be a "specialized skilled worker". In the third year, 4 weeks will be spent at the training center, 8-12 weeks in governmental schools and 2/3 of the year spent training on the site. A final theoretical and practical test concludes the cycle. It is important to notice that after the three year period the possibility to be hired with a regular working contract does not depend on the passing of the final test.

The majority of apprentices are in small firms. The monthly wage in DM for apprentices in 1987 is the following: 682.4 for the first year, 1061.6 for the second and 1339.6 for the third and their amount is established in collective agreements.

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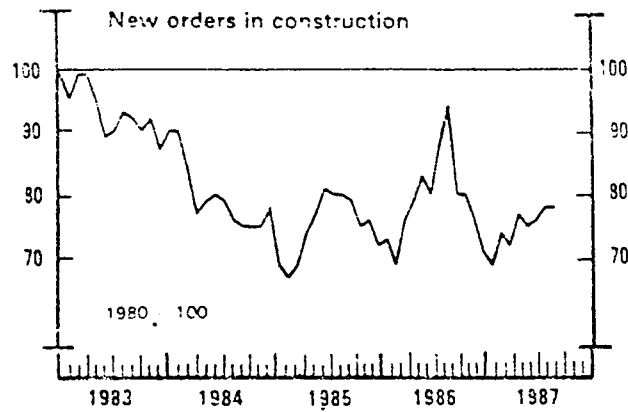
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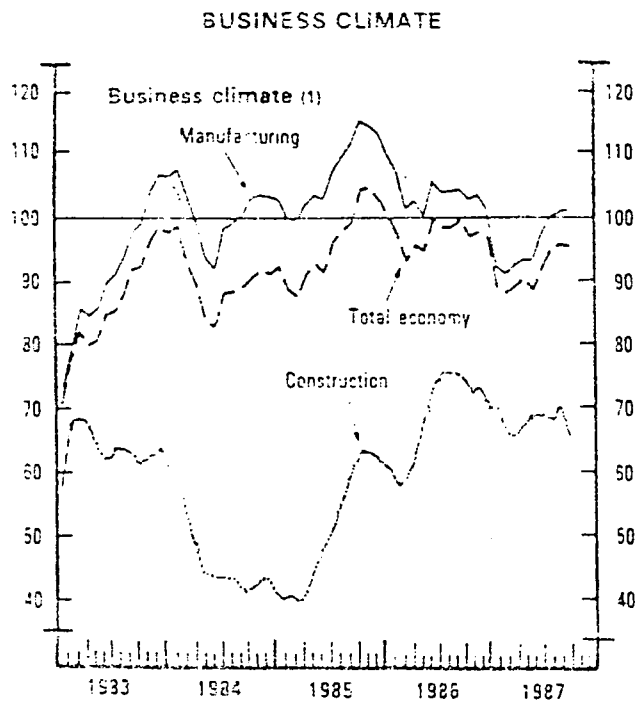
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Fig. 1 New orders in construction and business climate



Source: Deutsche Bundesbank



Sources: Deutsche Bundesbank, IFO

1. Weighted average of present and future (6 months ahead) business situation. A level of 100 corresponds to "normality".

Source: OECD: Economic Outlook, 1987 December

Table 1 Volume of construction activity in constant 1980 DM (billions)

Year	A	B	C	D	E	F
1970	215.61	4.8	117.34	54.64	95.94	59.11
1972	242.45	6.1	129.69	61.59	121.15	58.70
1974	222.97	-8.0	116.12	55.99	106.75	53.62
1976	215.11	2.8	109.37	54.86	104.27	52.60
1987	221.33	2.0	109.04	58.18	109.44	53.50
1980	237.27	2.7	119.17	59.57	117.19	59.06
1981	226.21	-4.7	112.44	57.75	110.72	57.29
1982	217.67	-3.8	108.15	54.83	105.02	56.57
1983	219.57	.9	108.29	55.27	109.92	57.40
1984	221.37	.8	109.91	55.98	110.80	57.50
1985	207.22	-6.4	98.75	54.96	98.34	56.32

Legenda

A= Total construction volume

B= Variation in % over the previous year

C= Primary building trade (Bauhauptgewerbe)

D= Finishing building trade (Ausbaugewerbe)

E= Residential construction activity (Wohnbauten)

F= Private non-residential (Wirtschaftsbauten)

Source: Baustatistisches Jahrbuch 1987: 67

Table 2 Percentage Distribution of Manpower in the Primary building trade in selected years

	1977	1986	1987
working owners	5.5	5.0	5.0
technical and sales	11.9	14.3	14.5
craftsmen and foremen	56.9	57.3	57.9
skilled and unskilled	21.8	17.4	17.5
apprentices	3.9	5.9	5.1
total	100	99.9	100
	(1,167,800)	(1,003,000)	(984,000)

Source: Statistisches Jahrbuch (1987)

Table 3 Percentage distribution of firms and employment according to firm size

	(total)	1-9	10-19	20-49	50-99	100-499	500 and over
Firms							
1976	(58,354)	54.2	21.6	15.0	5.6	3.3	1.7
1986	(59,132)	59.1	22.1	12.3	4.0	2.4	0.14
Employment							
1976	(1,238,600)	11.1	14.1	21.6	18.2	28.3	6.6
1986	(1,029,400)	14.4	17.3	21.1	16.0	24.0	7.1

source: Baustatistisches Jahrbuch 1987

France

Economic Activity

According to the *Annuaire Statistique* (1986), between 1978 and 1983 production in the construction sector declined 20 per cent in constant 1980 prices (in current prices the production value in millions of francs went from 266,485 to 442,439). The decline has continued in the years 1984 and 1985; only in 1986 there has been a reverse in the trend. The positive developments have continued but the volume of total activity in 1987 is still 16 per cent less than the 1976 level. The decline was felt both in large and small enterprises. Looking at specific segments of the construction industry in bricklaying (*maçonnerie*) which constitutes about 1/4 of the production, the decline between 1978 and 1983 was 26 per cent and was even larger in enterprises with more than 10 employees (-29 per cent). In finishing building activity as well the decline was felt more in larger enterprises. In carpentry (*menuiserie*) instead, enterprises with less than 10 employees had a decline in production of about 22 per cent while those with more than 10 employees had a contraction of 14 per cent. In terms of investments there was a decline of 31 per cent from 1978 to 1983 in constant 1980 prices.

In analysing the various components of the construction sector, according to the *Entrepreneurs de construction de la communauté* (1986) in the housing sector the decline in the volume of production was about 16.2 per cent between 1980 and 1985; but in the new housing sector the decline was much steeper (-30 per cent), while in the renovation and maintenance areas there was a 4.7 per cent increase. In industrial and commercial building, the decline was 7.5 per cent and in civil engineering

the decline was 19.8 per cent.

Employment

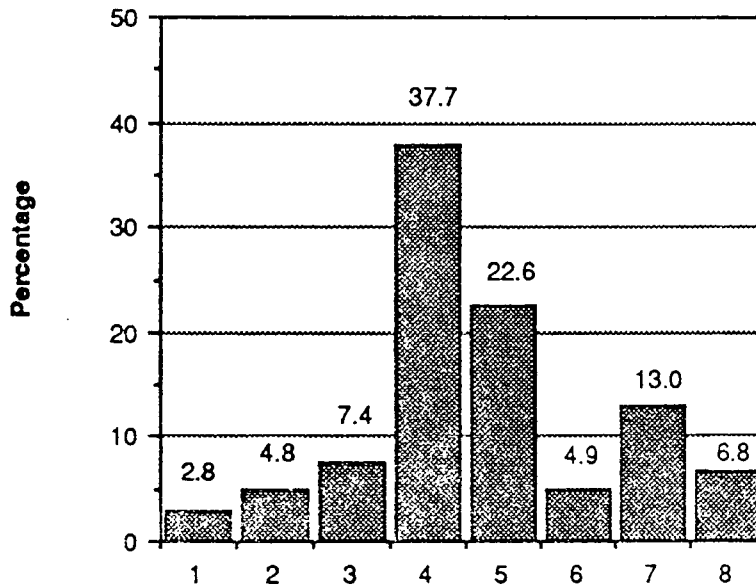
During the period 1974-85, based upon the data furnished by the Caisse Nationale de Surcompensation, there has been a decline in employment of 28.6 per cent from 1,667,682 to 1,191,060. The decline has been accompanied by many changes in the composition of the workforce and its demographic structure. Foreign workers, that were 30 per cent of total, declined to 21 per cent. The age structure is also different, with a higher proportion of older workers. As it is possible to see from table 2, the percentage of workers under 20 years declined from 6.2 to 3.5; the same happened for the group aged 20-29, while the workers over fifty went from 13.9 to 17.9 per cent.

In terms of skill structure of employment, in the period 1974 to 1985 there has been a significant decline in labourers (from 10.6 to 5 per cent) and in less qualified workers (from 13.3 to 7.3 per cent). On the other hand, there has been an increase in the more qualified workers. Particularly significant is the increase in technicians and cadres from 15.9 to 22 per cent (table 1).

The composition of employment is also different in the major sectors of the building industry. Apprentices are in higher percentages in the finishing trade while the least qualified workers are in higher percentages in the primary building trade. Clerical workers and engineers are instead in larger proportion in civil engineering. In the Fig 1 it is possible to see the distribution of employment in the construction

industry (civil engineering not included).

Fig. 1 Employees according to classifications in 1986



Legenda 1 Apprentice, 2 Labourer, 3 Specialized, 4 Qualified, ,
5 Highly qualified, 6 Foreman, 7 ETAM, 8 Cadres and Eng.
Total number of employees: 893,792

Other important changes during the past years are related to the different trends that can be found in different branches of the construction industry. The decline in employment is much higher in the primary building trade (*gross oeuvre*) than in civil engineering (*travaux public*) and the building finishing trade. The first lost between 1975 and 1985 about 31.5 per cent while the others lost about 26.6 per cent each.

Significant changes have also come about in the occupational structure of undertakings. In 1975 the average firm had 7.8 employees and in 1986 it was 5. The average change, however, is the result of different trends in the each sector. In civil engineering, the average size decreased

sharply from 48.9 to 16.9 employees. Also in the primary building trade there is a decline in the average size from 10.9 to 6.0. In the finishing trade, where many small firms are to be found, the size also decreased from 5.1 to 3.8 per cent. In all cases small and artisan firms increased their weight due to the process of specialization and the practice of subcontracting.

Another aspect of the construction sector is the high level of unemployment, which reached 18.0 in 1985 while in the country as an average the rate was 10.0 per cent. The unemployment rate changes dramatically from region to region; it was 11.0 in the Paris region and 27 per cent in Languedoc.

Collective Bargaining and Participants in Industrial Relations

On the employer side, the two leading organizations are the Fédération Nationale Travaux Public, FNTP (National Federation of Public Work) and the Fédération National du Batiment (FNB, National Federation of Building). In the first there are mostly employers with large size enterprises active in civil engineering, altogether there are 5,500 undertakings with 260,000 employees. In the second there are about 50,000 members (30,000 among them are artisans) which give employment to about 3/4 of the total employment in the sector.

On the union side, the leading organizations are: Fédération Nationale des Travailleurs de la Construction (FNTC, National Federation of Construction Workers) linked with the Confédération Générale du Travail

(CGT, General Confederation of Labour); la Fédération Nationale des Salariés de la Construction et du Bois FNCSB, linked with the Confédération Française Démocratique du Travail (CFDT); and the Fédération Force Ouvrière du Bâtiment et des Travaux Publics, part of the Confédération Force Ouvrière. Other organizations active in the sector are la Fédération BATI-MAT part of the Confédération Française Travailleurs Chrétiens (CFTC French Confederation of Christian Workers) and the Syndicat National des Cadres, Techniciens, Agents de Maîtrise et Assimilés des Industries du Bâtiment et des Travaux Publics linked with the Confédération Générale des Cadres (CGC, General Confederation of Cadres). The unionization rate it is not easy to estimate, but the construction sector has one of the lowest unionization rates in France and is between 3 and 5 per cent of the employees. Regarding the relative strength of the employees organization, it is possible to see the distribution of votes of the candidates that are running in order to be shop stewards. In 1984 among blue collars, out of 50,000 cast votes, (a very small portion of the entire workforce) CGT had 39 per cent, CFDT and FO had 12 per cent each, and 32 per cent did not belong to any union, while 4.6 belonged to other unions. (Ministere des Affaires Sociales quoted in Tallard 1986: 64).

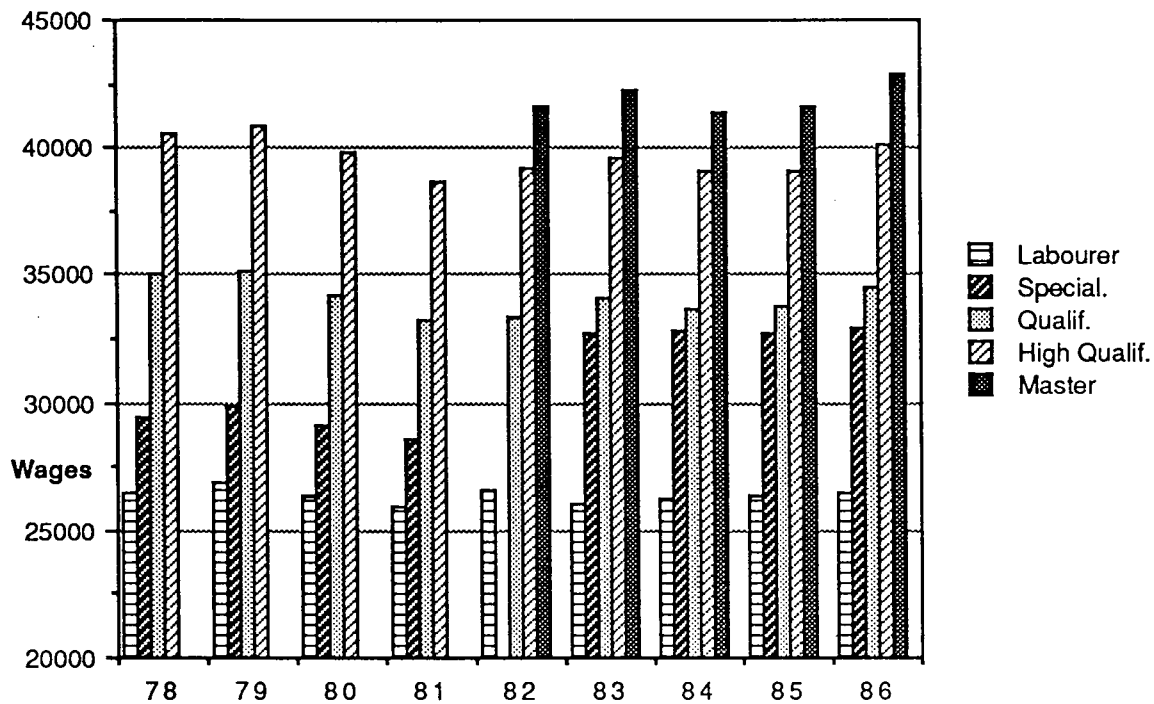
The collective bargaining structure is very complex and heterogeneous. There are national agreements for different categories of employees that are signed in three sectors: civil engineering, building and artisans. These agreements can be extended by an ordinance of the Ministry of Labor (with the favorable opinion of a special commission) and afterward they become applicable to the entire sector specified. Moreover the minimum wage for the various classifications are established in

regional or departemntal agreements (they do not cover the civil engineering sector where there are only national agreements). Collective agreements at the enterprise level are not very important but their influence is growing and now is relevant for 15 per cent of workers employed in firms with more than 10 employees. Obviously, legislation and agreements that are signed by a general confederation, such as CGT or CFDT or FO, also have an impact in the construction sector. Overall in 1985, 84.5 per cent of the workers are covered by some form of agreement, a percentage that is lower compared to the other industrial sectors. In the civil engineering sector, however the percentage covered by agreements is much higher and includes almost all the employees in the sector.

Wages

Wages in the construction industry are lower than the average in other activities. In 1975 annual net wages were 16.1 per cent less than the average (24,723 vs. 29,482 Francs). In 1985, the difference reached 17 per cent less (72,286 vs. 87,069) according to INSEE, (Economie et Statistique, Mai 1986). The comparison is worse if we consider only wages for males (they are about 94 per cent of the sector). In the case of males, in 1985 the average salary in the construction industry is 24.4 per cent less (Tallard 1986: 45).

Fig. 2 Wages for blue-collar workers in 1978 prices



Source: FNB, Evolution des salaires dans le batiment (29 Jan. 1988)
Annexe VIII, deflated by CPI as reported in table 9 of introduction

The comparison between construction and other sectors is more favorable when hourly wages are considered. According to Eurostat (see table 10 in the introduction), in 1972 hourly average gross earnings for manual workers were only 0.26 per cent less than the manufacturing sector. In 1986 the difference was 1.9 per cent less. When price increases are taken into consideration, between 1980 and 1986 hourly wages increased 7.4 per cent (see table 11 in the introduction). For the industry as a whole the increase was 9.3 per cent. The rank of hourly earnings in construction slipped in recent years it was 27th among 47 listed sectors in 1978 and 31th in 1985.

As is possible to see in fig. 2 if we consider annual wages between

1978 and 1986 as an average there was only a 3 per cent increase but for some group such as the specialized workers (ouvriers spécialisés) the gains were larger.

Naturally, direct wages are only a part of total labor cost. In 1978 direct wages were 51 per cent of total labor cost and in 1984 they were 47 per cent, the smallest among the countries considered in this report.

Wage levels are positively correlated with enterprise sizes and in large firms the blue collar has an average salary that is 1.34 times the amount paid in the smallest units.

Wages also change in different regions. The blue collar average wage in 1985 is 67,836 F. and in 8 out of 22 regions wages are within 5 per cent of the average; in 11 regions they are below and in 3, where there are 1/3 of all employees, they are above 5 per cent of the average. Wages naturally change according to skill levels. When the wage in the various blue collar categories is divided by the average wage we obtain the following result: labourers 0.79, specialized workers 0.98, qualified workers 1.01, highly qualified workers 1.17 and maître ouvrier (foreman) 1.26. The hierarchical coefficients that are used for the calculation of the minimum wage level are the following:

worker categories	construction	civil engineering
labourer (ouvrier manoeuvre)	135	120
specialized 1 level	---	130
" " 2 level	150	140
" " 3 level	160	150
qualified 1 level	170	160
" " 2 level	180	170
" " 3 level	200	185
highly qualified	215	200

maître ouvrier	225	---
chef équipe (foreman)	225	210
" " 2 level	240	225

Wages also vary according to the subsectors of the construction industry. In bricklaying (where there are 34.5 per cent of all employees and 44 per cent of blue collars) wages were 6.8 per cent lower than the average. The most highly paid sectors are drilling (+33.6 per cent), industrial installation (+12.5 per cent), and metal construction (+10.4 per cent) which are in general part of the civil engineering sector.

For ETAM the average annual salary in 1985 was 27 per cent higher than the average in the sector (92,085 vs.72,297). Among 15 subsectors 9 are within the 5 per cent range around the average, while 4 are above and 2 below. The most highly paid are those employed in drilling and special foundation.

According to an agreement signed in 1971 for blue-collars wages are paid on a monthly basis 39 hour per week 169 per month and there is a mechanism (lissage) for uniforming them from month to month. For this purpose each enterprise chooses in consultation with the employee representatives a standard weekly schedule between 39 and 44 hours, as close as possible to the hours actually worked. For the hours above 39 there are established increases that are applied. Hours not worked because of bad weather or sickness are deducted and paid independently on the basis of different rules (see next section). If the blue-collar has worked less than 80 hours then the wages are fixed according to the time actually worked.

Hours

According to the data furnished by the Ministry of Labor, actual hours of work for the construction sector were 39.63 per week in 1985 in the months of April, July and October. It is the highest among the non-agricultural sectors (preceded only by transportation), where the average is 38.9, but it should be kept in mind that the months considered do not include winter months when the activity in construction is usually lower. The law has fixed at 39 the weekly hours and this limit is stated in collective agreements. The actual hours of work are influenced by the size of the enterprises. In smaller units with between 10 and 50 employees, the average is higher than in the firm with more than 500 employees where probably the average is lowered by extra paid vacation time.

The weekly working hours established by collective agreement are 39 hours. During the year the enterprises can use a maximum of 130 supplementary hours that can be utilized after consultation with employee representatives. After 130 hours (this limit cannot be exceeded in civil engineering unless there is authorization from the Labour Department Inspector) and up to a maximum of 145 the favorable opinion of employees representatives is necessary. Working hours cannot exceed 10 hours per day and 48 hours per week. In 12 consecutive weeks the average cannot exceed 46 hours and in any semester cannot be higher than 44 hours as an average.

Overtime pay is calculated on a weekly basis in the following way: the first eight hours of overtime are paid 25 per cent more and thereafter

the increase is 50 per cent.

The working hours are divided into 5 days with two consecutive days off afterwards (one is Sundays and the other can be as a first choice Saturday or Monday).

The working time can be arranged in different patterns based upon seasonal conditions from 32 up to 46. In winter for a period up to 15 weeks weekly hours can be reduced to a minimum of 35 hours, 32 in civil engineering (the monthly wages are always based on the 39 hours). Those hours not worked below 39 hours can be utilized in following periods and will not be included in the amount of overtime possible. In any event however, the worked hours over 39 per week will be paid the overtime premium +25 per cent for the first three hours and 50 per cent for the rest. In civil engineering it is also possible to divide by a reduction coefficient of 1.25 the hours above 39 done to compensate the periods when the hours were below 39. The result is the number of hours that have to be recovered. If this arrangement is followed, then the hours recovered are not increased by overtime premiums.

Hours not worked because of bad weather are paid 75 per cent to all the blue-collars that have at least 200 hours of work in the previous two months. The payment starts at the second hour up to 9 hours, however, if the entire day of work is lost then only the first hour is not paid. The maximum number of hours that can be paid is 45 per week and 55 days per year.

In case of absence from work due to sickness or injury, legislation guarantees payment for 30 days at 90 per cent of wages plus another 30 days at 66 per cent wage with 10 days of reservation. For blue-collars in

order to qualify for those benefits, 3 years of seniority are required; 10 extra days are paid per bracket of 5 years of seniority. The agreement for blue collars provides 45 days at 100 per cent the wage level and 45 days at 75 per cent with the reservation of 3 days and the requirement of 3 months seniority in order to qualify if the sickness is not work related, otherwise 100 per cent of wages for 90 days.

During the year the employee has 30 working days of vacation and a maximum of 11 days of public holidays (Saturday and Sunday not included), the average is 8.

In civil engineering, a recent agreement signed in June, 28 1985 allows the arranging of hours of work based upon the consent of employee representatives at the enterprise level in different patterns; for instance in 4 or 6 days of work, during week-ends or in successives and overlapping shifts. Work on a six day basis cannot exceed 5 consecutive weeks. The compensatory rest period can be accumulated up to five days and is paid at 50 per cent rate.

Vocational Training

In France there is a rich and articulated structure devoted to vocational training where social partners and government interact at different geographical areas and in various organizations.

In the following pages, the focus will be on the training promoted by the employers and union organizations but it should be underlined that there is an interconnection among the various paths that lead to the qualifications. This is true everywhere but especially in France, where the

agreements signed by the social partners are extended by legislation. In the field of training, governmental control and supervision is strong also in areas outside the national education system.

The two major structures that are devoted to training in the construction sector and in civil engineering and that are formed by social actors are the following:

1) Le Comité Central de Coordination de l'Apprentissage (CCCA) du Bâtiment et des Travaux Publics (Central Committee for the Coordination of Apprenticeships in the Building and Public Work). CCCA is formed by members of the employers and unions organizations in equal terms and it is in charge of promoting initial vocational training. The major effort is represented by apprenticeship programs that alternate periods at work with period of schooling in special centers (Centre de Formation d'Apprentis CFA, Centers for the Training of Apprentices). Most of the 101 existing CFA are managed in equal terms by representatives of employees and employers that together form an association of vocational training (AFOBAT, Association pour la Formation Professionnel dans le Bâtiment et les Travaux Publics, Association for Vocational Training in Building and Public Work). CCCA is also present at the departmental level in Groupe Départemental d'Apprentissage (GDA) and regional levels. The Government is also involved and there are agreements between CCCA and the Ministry of Education. Government inspectors are also in charge of controlling the quality of the programs both at the firm level and at the CFA.

The resources of CCCA are made up from a parafiscal contribution of all enterprises (0.30 per cent, and a supplementary 0.1 per cent for the youth training programs are collected in firms with less than 10

employees). According to Pasquier (1986) (the General Secretary of CCCA), CFA directly linked with CCCA had 33,000 apprentices, while altogether CFA had 42,000 apprentices in the school year 1984-5. Along with the apprenticeship programs, there are also programs that prepare for the apprenticeships (Classe Préparatoire à l'Apprentissage CPA) with about 4,000 students. During the same year the CCCA had a staff of 2,000 people, 1,200 of them teachers. CCCA is also involved in training activity outside the apprenticeship programs and in the continuous (Formation continue) and alternate training (formation alternée).

The qualifications in the constructions skills are certified by the Certificate d'Aptitude Professionnel (CAP) or at higher level by the Brevet d'Etudes Professionnelles (BEP). Both degrees can be obtained through full time schooling in national education institutions or after the apprenticeship period. In the school year 1984-85, 16,665 students coming out of CFA took the CAP exams and 43 per cent received the degree (Le Lay 1986). To this number one should add the CAP obtained after the LEP (Lycée d'Enseignement Professionnel).

In the area of initial training, we should also include the activity of the "Association National Formation Professionnelles des Adultes" (AFPA), especially devoted to unemployed in all sectors over 25 years of age. In 1985 there were about 18,000 people involved in its activity, promoted by AFPA.

2) Le Groupement de Formation Continue du Bâtiment et des Travaux Publics (GFC-BTP)

In the construction sector, there is also a structure for training of workers that are already in the sector. The GFC-BTP is formed by union and employer organizations in firms with more than 10 employees. At the regional level, there is the "Association Regionale de Formation Continue, AREF. In 1985, there were 20,312 enterprises representing 876,220 employees that were part of the GFC-BTP.

The GFC-BTP promoted training involved about 52,800 employees in 1985 with an average of 684 hours of training for training aimed to obtain qualification and 80 hours for shorter specialization periods. The vast majority of employees that benefit from the program (83 per cent) are in enterprises that have more than 50 employees.

The GFC-BTP is also in charge of coordinating its own activity with the training promoted directly by the enterprises, which in 1985 involved about 42,000 employees with an average of 49 hours of training each.

The resources of GFC-BTP are made of contributions due by law from all enterprises with 10 employees or more and equal to 1.2 per cent of the gross wages. This amount is distributed in the following way: 0.5 for continuing training, 0.1 for individual leaves for training, 0.3 for training in alternance, 0.3 given to C.C.C.A.

Altogether the structure devoted to training is very well articulated. Apprentices in the sector represent almost 2.1 per cent of the total. Apprentices are 32 per cent of those that are preparing the CAP and the total of employees that have participated in the various programs is

63,000 people in 1985 (FNB 1986). When the construction sector in 1982 is compared with all the other sectors, it appears that it is still behind. According to Tallard (1986: 52), the financial effort for the sector is 1.24 per cent while in the rest of the other sectors it is 1.96. The proportion of employees that have followed a stage is 5.6 per cent compared to 18.7 per cent. The expense for training per employee in the sector is 500 F in construction and 1,600 in the remainder. These figures represent for the construction sector only the amount of the legal contribution. They do not include other expenses that the enterprises may invest in training on their own.

Vocational Training in Agreements

The apprentices have their working conditions regulated by agreements and legislation. The current wage rate for apprentices starts with 15 per cent of SMIC for apprentices under 18 years of age and 25 for older ones during the first semester up to 60 or 70 per cent according to the age group during the fifth and sixth semester.

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Table 1

Distribution of employees according to qualifications

YEAR	1974	1985
apprenticeships	1.3	2.1
labourers	10.6	5
specialized workers	13.3	7.3
qualified workers	57.7	38.2
highly qualified	--	20.6
team leaders	--	4.8
<i>total blue collars</i>	<i>82.9</i>	<i>78</i>
ETAM	11.9	14.6
Cadres, Eng.	4	7.4
<i>total white collars</i>	<i>15.9</i>	<i>22</i>
not determined	1.1	--
total	99.9	100

Source: Caisse Nationale de Surcompensation

Table 2 Age structure of employees in construction in percentages

Age Group	1974	1985
under 20	6.2	3.5
20-29	31.3	25.6
30-39	26.5	30.4
40-49	22.1	22.4
over 50	13.9	17.9
total	100	100

Source: Caisse Nationale de Surcompensation

Italy

Economic Activity

According to the data presented by Euro-construct 1987, the volume of activity in the construction sector between 1980 and 1988 has diminished 7.0 per cent; in 1989 the forecast is predicting a reverse in the trend with increases of 1.2 per cent. It is important, however, to distinguish among the different subsectors. In the housing sub-sector, new buildings have decreased their share and will represent only 23.6 per cent of the activity (down from 27.3 in 1980). Renovation instead is increasing and represents 22.7 per cent (up from 20.2 in 1980). In non-residential building the private component is not performing well and its share went down from 27.2 to 25.7 per cent. Civil engineering as a percentage of total activity went up from 25.3 to 28.

Employment

According to official statistics (Annuario Statistico) between 1977 and 1986 there has been a decline of 4.4 per cent of total employment in construction, from 1.969 millions to 1.883. In the ten years considered, employment changed according to the economic cycle; the maximum employment level was reached in 1981 (2.093 millions) and from this year to 1986 the decline is 10 per cent. Independent employees were 19 per cent in 1977 and 25.5 per cent in 1986; their number increased from 372,000 to 480,000 (+29 per cent). Dependent employees declined 12.1 per cent (from 1.597 million to 1.403 million). The increase in Italy like elsewhere is linked to the diffusion of sub-contracting practices and the increase in renovation activity. The percentage of independents varies in

different geographical regions and can be 31 per cent in the Northeastern area and only 19 per cent in the South. It should be mentioned that the estimate of employment in construction done by ISTAT is higher than the data furnished by other sources. For instance, in 1981 according to *Annuario* there are 1.629 dependent employees; according to Eurostat 1.506 million; and according to the Nationwide Census done in that year 1.193 million. The last one is obviously the most reliable source but unfortunately it is available only every ten years. The number of employees registered in Casse Edile (Construction Fund, referred to later in this report) is about 500,000 in 1986.

Total unemployment in Italy increased steadily from 7.6 per cent in 1980 to 11.1 per cent in 1986, with strong regional differences, because in the South the level is twice compared to the North (in 1986 16.5 per cent versus 8 per cent). In the construction industry, the variation is even stronger, and while in the North unemployment is less than 5 per cent, in the South it is around 20 per cent. According to Eurostat, the number of unemployed that had previously worked in construction were 126,183 in 1980 and 202,258 in 1984. If we consider the employee figures given by Eurostat, the unemployment rate in construction went from 8.4 per cent to 14.7 per cent between 1980 and 1984. Because of the upward trend in unemployment in the country as a whole, unemployed construction workers were 7.8 per cent of total unemployment in 1980 and 7.4 per cent in 1984.

Among dependent employees there is a different trend for blue collars and white collars. The decline is concentrated in the first group while the second has doubled since 1970.

In order to see the changes in the structure of the construction sector it is useful to see the changes between data collected in the 1971

and 1981 Census. Between those years firms increased 135.8 per cent (from 123,032 to 290,105) while employment increased only 27.2 per cent (from 938,422 to 1,193,356). As a consequence, the average number of employees per firm went from 7.6 to 4.1. Particularly strong has been the development of artisan enterprises which can have up to 10 employees, including family members but without considering apprentices. The number of artisan enterprises went from 79.6 per cent of firms and 30.3 of employment to 90 per cent of firms and 51.9 of employment. The changes in the distribution of employment according to firm size are shown in table 2. If the artisan firms are excluded, the average firm went from 26 to 19.8 employees.

In terms of distribution based upon activity in construction sub-sectors in 1981, 11.5 per cent of employment was in civil engineering 8.5 per cent in finishing; and 13.6 in installation. Firms in civil engineering tend to have a larger number of employees (9.6) while in the finishing trade the smallest firms, with 1.6 employees each on the average, are particularly active.

The percentage distribution of employees among the different categories is shown in table 1 for October of 1980 and 1985. The structure between 1980 and 1985 for blue collars has not changed very much; the only significant difference is the decline of the lowest blue collar category. White collars are distributed in 7 categories and 10 per cent are in the three middle ones (3,4,5). As a rule, categories are assigned according to the duties that are performed and there are no automatic upward promotions except for white collar at their first job who after two years of service are promoted from the first to the second level.

Participants in Industrial Relations

In Italy for the employers side there are 10 different associations. The leading one is Associazione Nazionale Costruttori Edili (National Association of Construction Employers, ANCE). It belongs to Confindustria (the private employer associations) and groups most of the private employers. For smaller firms there is the Associazione Nazionale Imprese Edili Minori (National Association of Smaller Construction Firm, ANIEM). Public sector firms are represented by Intersind, which is the organization that groups most of the public owned firms for collective bargaining purposes. There also four associations for artisans divided mostly along political lines. Cooperatives are also very active in the sector and there are three major organizations divided along political lines.

ANCE is a second degree organization and is formed by around 99 organizations of first degree at the provincial level and 20 organizations at regional level. Altogether about 19,000 firms with 700,000 employees belonged to ANCE in 1986 . The average firm in ANCE had 25.2 employees in 1981; in 1986, however, the average firm in ANCE had declined to 20.3 employees.

On the employees side, the unions main representatives are: Federazione Italiana Lavoratori Legno Edilizia Affini (Italian Federation of Workers in Wood, Construction and Building Materials, FILLEA). FILLEA belongs to Confederazione Italiana Generale del Lavoro, (Italian General Confederation of Labor, CGIL) and has about 273,000 workers in the construction sector; Federazione Italiana Lavoratori Costruzioni ed Affini

(Italian Federation of Workers in Construction and Building Materials, FILCA) which is part of Confederazione Italiana Sindacati Lavoratori (Italian Confederation of Workers Unions, CISL) and has about 140,000 members in construction; and Federazione Nazionale Lavoratori Edili Affini e del Legno (National Federation of Workers in Construction, Building Materials and Wood, FENEAL) that is part of Unione Italiana del Lavoro (Italian Union of Labor, UIL) with 90,000 members in construction. Overall the unionization rate is around 38 per cent if the number of employees reported in Eurostat is considered.

Collective Bargaining

There are four national agreements: the most important ones are with ANCE and INTERSIND; the others are with the associations of the medium firms, artisans and cooperatives. Beyond the national agreements, there are agreements at provincial level where only specific issues, indicated in national agreements, are settled.

In Italy as elsewhere in the construction sector there are bilateral institutions that are run together by unions and employers (ANCE) and that are concerned with assuring vacations and other benefits to the employees, who in the construction sector move frequently from one enterprise to another.

The most important bilateral institutions are the Casse Edili, (Construction Funds, CE); there are 104 of them in Italy on a provincial basis (Bellardi 1986). In nine cases there are CE with medium firms, artisans and cooperatives. Employers have to pay 23 per cent of wages to CE which are used for various benefits (see section on wages). CE are

financed by contributions up to 3 per cent of wages (5/6 of that is paid by the employers and 1/6 by the employees). CE have also played an important role in strengthening employers and union organizations because 0.15 per of wages are paid by all blue collar workers (union and non-union member) and the same is paid by all employers; the funds collected are used by their respective organizations, which offer a series of services to members and not members. Finally, CE collect union dues and promote training and research in the labor market. In the following analysis of wages, hours, and training only the contract signed by ANCE will be examined unless otherwise specified.

Wages

According to Eurostat, the average gross hourly earnings for manual workers in industry in current prices increased vis-à-vis the other sectors. For instance in 1972 the wage in construction was 2.5 per cent less than in manufacturing and in 1985 it was 10.6 per cent more. The gains however were made during the seventies because in the eighties the construction sector wage increased at the same rate as the other sectors. In constant prices the average wage increased 7.7 per cent from 1980 to 1985. In order to examine the relationship of current wages in construction and other sectors it is possible to use the average gross hourly earnings for manual workers reported by Eurostat. In 1978, construction ranked 14 among 50 listed sectors in 1978 (3091 L.) and in 1985 the rank was 12 (8397). It is worthwhile to notice that in all the other countries considered in this report, the rank of construction hourly wages has decreased.

In Italy as elsewhere the relative position of earnings in construction declines if weekly or yearly earnings are considered. For instance, while in 1985 the hourly gross earning (Eurostat data) was in construction 8 per cent higher than the rest of the industry, for the same year the yearly earning (Banca d'Italia) was 20 per cent less.

The basic elements of wages in Italy are: the contractual minimum, the cost of living adjustment (*contingenza*) and wage supplements based on provincial agreements. The sum of these three elements will be referred to as the basic wage.

The value of the two national elements in October 1987 for the various categories is reported in table 3 .

The minimum wages are in the 100-200 range but with the addition of cost of living adjustments the range decreases to 100-136. Cost of living adjustment increases are added twice a year (May and November) and are based on the changes in the consumer price index. The provincial integration varies from province to province and is also different for blue collars and white collars that are in the same category. Table 4 report the percentage increases over national wages in two provinces, Torino in the North and Caltanissetta in the South.

In Torino, for white collars at the top the increase is 15.2 per cent of the national wage, at the bottom the increase is 12.8 per cent; for blue collars at the top level (4) there is an increase of 15.1 per cent while at the lowest level the increase is 13.6 per cent. In Caltanissetta (a Sicilian province) the increases are lower across all categories. As a result of all the three elements of pay, the range is around 100-139 for white collars and 100-115 for blue collars in most provinces.

For white collars there are also increases related to seniority (every

two years for a maximum five times). After ten years this element of pay can be about 9 per cent of the total wage. For blue collars there is also a premium for permanence in the sector. If there are at least 2,100 hours of work in the previous two years, there is a bonus that increases with time and on the basis of the worker category. Of the total amount of workers that are enrolled in the Cassa Edile list, 65 per cent have benefitted from the premium, which was around 5 per cent of total amount of wages paid by employers and as an average for employee meant 600,000 Lire per year with some variation based upon levels.

If we consider the three basic elements of pay between 1979 and 1986, after taking into consideration price increases (in Italy the inflation level has been quite high about 15 per cent as an average between 1979 and 1985), for a white collar in the fifth category working in Bologna there was a 2.4 per cent increase while for a blue collar in the third category the increase was 8.2 per cent. This result was due mostly to the effect of a nationwide indexing system which is agreed upon in the entire private sector and has been a center of controversy in the industrial and political arena for many years. The effect of the indexing system on the overall inflation is still controversial. One thing that is agreed upon by all is that the system, which provided a uniform increase independent from the wage levels, narrowed pay differentials too much. In more recent years, collective bargaining has tried to reverse this trend.

The agreements stipulate supplementary wages to be paid for work in special conditions, such as in tunnels or wells, in high altitudes or in rain. Those increases can vary from 5 % to 55% of total wages. Work outside regular hours is paid a premium that ranges from 8 per cent to 70 per cent of the basic wage. For instance, work that is regularly performed at night

is paid +25 per cent of basic wage, overtime work in regular working days +35 per cent, work during holidays +45 per cent.

In Italy, as has already been mentioned before, CE plays a large role in providing certain benefits to workers in spite of the mobility between firms. The employer has to set aside 22.55 per cent of wages (8.5 per cent for holidays, 10 per cent for Christmas bonus and a 13th month they paycheck, 4.05 per cent for rests and hours reduction).

During a period of sickness, the employees receive from the social security the same benefits that apply to the industry in general. The CE integrate the social security system in the following ways: for the first three days, if the absence is longer than 14 days, 50 per cent of the basic wage. If sickness lasts more than 21 days then the first three days are paid in full. Because the amount paid by the social security system, from the 4th to the 180th day is smaller than the basic wage, the CE integrates the contribution up to 100 per cent if there are at least 600 hours of work in the previous 12 months. From the 180th to the 270th day, the CE integration guarantees up to 50 per cent of basic wage (after March 1988 the payments are made directly by the firm). In case of sickness, the blue collar worker has the right to maintain his job for 9 consecutive months, or for nine months in a period of two years in case of several sickness periods or relapses in the same one. In case of accident, the blue collar has a right to his job until he can work again. When there is no work because of meteorological conditions, then the worker gets 80 per cent of wages up to 13 weeks.

During the period 1977-1986 the integration fund (Cassa integrazione) that is administered by Social Security (Istituto Nazionale Previdenza Sociale, INPS) and intervenes for integration of wages lost

because of economic or meteorological reasons and for special circumstances (Cassa Integrazione Straordinaria) has paid on the average 81 million hours each year, which was about 12-13 per cent of all expenditures made by the Fund.

When the worker loses his job, if he worked 26 weeks in the previous 2 years, he receives 2/3 of the average pay gained in the last four weeks for 90 days by the social security system. This period can be extended in special circumstances.

Finally it should be mentioned that direct wages are a decreasing part of total labor costs. According to data furnished by Eurostat direct wages were 56 per cent of total labor cost in 1978 and only 49 per cent in 1985.

Hours

The legal maximum according to the law is 48 hours of work per week, the national agreement, however, limits the hours to 40 per week distributed in five days per week. The maximum working hours in a day is 10 and in a week 48. If the enterprise for technical reasons distributes the hours in six days, the union representatives have to be informed in order to verify if necessary; the hours worked on Saturday are paid with an 8 per cent increase.

The blue collar workers, if requested by the employer, have to perform up to 150 hours of supplementary hours that are paid with a 35 per cent increase if worked in normal work day.

During the year blue collar workers have the right to 32 hours of personal leave (the amount will increase to 40 hours starting in 1989).

For a period of eight consecutive weeks starting in December, for blue collars workers hours of work are reduced to 35; this means a collective reduction of 40 hours. For white collars there are 72 individual hours of leave each year (the number has been increased to 80 starting in January 1989).

In terms of holidays, the employees in the construction sector under the contract signed by ANCE have the right to 20 working days as vacation; to this 11 national and religious holidays have to be added.

Hours actually worked are on average 86 per cent of contractual hours. In table 15 of the introduction it is possible to see that hours worked during the year in construction were on the average 3 per cent less than in the industrial sector.

Vocational Training

One traditional route for training in the construction sector is through apprenticeship. In white collar jobs apprenticeship lasts one year and is paid 60 per cent of the amount received by employees in the third category; their number is minimal however. For blue collars, the apprentice programs can last three years and the pay will vary according to seniority, from 60 to 85 per cent of the pay of the qualified worker (second category). The number of apprentices in the firms part of ANCE is 1.9 per cent (about 13,000); a larger number of apprentices are however in artisan firms which, as mentioned before, can have only ten employees including family members in order to qualify for the category. There is no limit however to the number of apprentices that they can have. It is difficult in any case to guess their numbers or the quality of training that

they are receiving.

For managers there is the Associazione Formazione Manageriale/Edilizia (association for managerial training in construction), which was founded in 1985 and until now has promoted about 100 seminars with 2,000 people. By agreement there are schools that are financed by the employers with a percentage that varies from 0.20 to 1 per cent of wages (this should amount to 50 billion lire in 1986). The schools, managed together by unions and employers representatives, have a national association (Formedil). In 1983, according to a questionnaire done by the school associations, there were 87 schools but only 59 performed a training activity. In these schools 5,000 students had participated in the courses; the schools had 249 teachers and 225 staff. In most of the cases, the training was based on alternation of schooling and work periods and in 69 per cent of cases, the schools help the student in the job search. The programs are tailored for young students who have finished the compulsory education period and are based on annual or biannual programs; the majority of students are in this category (53 per cent). There are courses for people already at work that want to upgrade their skill or for retraining (the latter is only a small percentage). Many schools (49) had been helped in their activity by the European Social Fund.

In 1984, the Parliament passed a law (n.863) in order to give incentive to the hiring of youth in training-work contracts. The effects of this law in construction were minimal. In order to increase the use of this law in the contract signed in 1987 the content of the law is included in the agreement and there are provisions for speeding up the bureaucratic process involved. The contract can be 12 or 24 months long and can be offered only to employees between 15 and 29 years of age.

There is a minimum amount of hours that has to be devoted to schooling and the employer can assign, for the purpose of pay, a category that is at maximum two levels lower than the one that should be given on the basis of the regular work contract.

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Table 1 Percentage of employees in the existing categories

	1980 b.c.	1985 b.c.	1985 w.c.
7 W.C. Highest Category	n.a.	-	1.0
6 W.C.	n.a.	-	2.0
5 W.C.	n.a.	-	4.5
4 W.C. and B.C. highly specialized	1.4	2.6	2.5
3 W.C. and B.C. specialized	34.5	35.7	3.0
2 W.C. and B.C. qualified	25.5	24.5	2.5
1 W.C. and B.C. labourers	23.5	18.3	1.5
apprentices	1.9	1.9	-
total	86.8	83.0	17.0

n.a. not available

b.c. blue collar

w.c. white collar

Source ANCE (1987)

Table 2 Distribution of employment according to firm size in the 1971 and 1981 Censuses in percentage*

1	6.09	13.19
2	3.86	6.89
3-5	13.49	19.40
6-9	15.41	15.80
10-19	18.50	16.42
20-49	20.40	14.42
50-99	9.88	6.83
100-199	6.81	4.23
200-499	3.92	2.13
500-999	1.33	0.69
over 1000	0.31	-
employment	834,591	1,044,984

*does not include plant installation SOURCE: Censuses 1971 and 1981

Table 3 National Wages in October 1987 in the Construction Industry for the seven existing categories

Cat.	minimum	COLA	national wage
7	808,552	750,163	1,558,715
6	727,697	748,687	1,476,384
5	606,414	746,473	1,352,887
4	565,986	745,735	1,311,721
3	525,559	744,997	1,270,556
2	473,003	744,037	1,217,040
1	404,276	742,783	1,147,059

Cat.= Categories COLA = Cost of Living Adjustment

Source: ANCE (1987)

Table 4

Percentage increase over the national wage established at the provincial level.

	Torino		Caltanissetta	
	white collars	blue collars	white collars	blue collars
7 highest level	15.2	-	9.4	-
6	15.8	-	9.6	-
5	14.9	-	8.6	-
4	13.6	15.1	7.3	4.8
3	13.1	14.7	6.6	4.5
2	12.9	14.2	6.3	4.1
1 lowest level	12.8	13.6	5.9	3.8

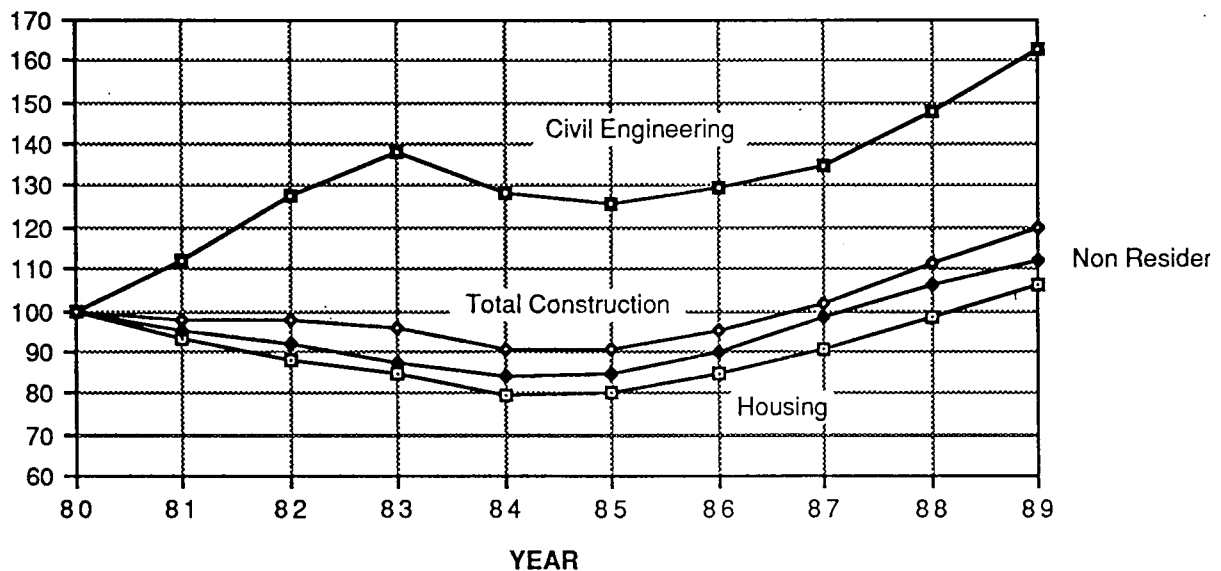
Source: Ance

Spain

Economic Activity

The economic activity in the construction sector as a whole has been declining since 1974. In ten years, between 1976 and 1985, there has been a decline of 20.3 per cent in the index of total activity measured in constant 1971 prices.

Fig.1 Volume of activity in Construction and its principal component 1980 =100



Source FIEC (1988) 1988 to be revised, 1989 forecast

The situation has changed since 1985 when the declining trend was reversed. As it is possible to see in fig.1 the increase after 1985 has been substantial: +5% in 1986, +7% in 1987, +8% in 1988, plus 8% in 1989.

If we look at the housing sector, the decline in housing starts in the period 1976-85 is 33.3 per cent. The decline is related to the private sector in both subsidized [*protección oficial*] and free activity. The public

housing sector (13 per cent of the housing started in 1985) in the ten years considered has been on the average 8 per cent of the total activity, but there were significant variations from year to year. After 1985 there has been a 5 % increase in 1986, a 7 per cent increase in 1987, a 9 per cent increase in 1988. In the housing sector there has been an increase particularly in renovation activity and, for instance, in the official auction (*licitation oficial*), renovation was 5 per cent of building activity in 1976 and 11 per cent in 1985.

If we look at the official auction (which constitutes about 23 per cent of total construction activity) there has been an increase over the period 1976-85 (+28 per cent in constant 1971 prices), mostly concentrated in civil engineering, which is about 58 per cent of all *licitation oficial* and 13.3 per cent of total construction activity (SEOPAN: Informe Anual 1985). In the civil engineering area (*obra civil*), the changes have been quite dramatic as it possible to see in fig.1. In this sector the years of decline were 1984 and 1985 but overall performance between 1980 and 1989 has been particularly positive plus 62.p per cent. The fact that Spain will host the Olympic game has stimulated the activity.

Employment

In the construction industry, there has been a large fall in the number of people active in the sector: -15.5 per cent between 1977 and 1986; particularly large has been the fall in the number of people that have lost their jobs. Unemployment in the sector went from 11.5 per cent in 1977 to 31.7 (Anuario Estadistico :1986). The only positive note is that the downward trend has been reversed in 1986, when employment rose 2.7 per

cent. According to Anuario de Estadística Laborales, however, between 1985 and 1986 there was growth of 7.5 per cent in employment when marginal workers are not considered.

Unemployment rose dramatically in the in the country as a whole and even more so in the construction sector. In table 1 it is possible to see the trend in the unemployment rate in general and in the construction and industrial sector in particular. In 1985, among 1,727,000 unemployed that had worked previously, 23.3 per cent were in the construction industry.

The employment figure in table 1 includes around 2 per cent of marginal workers. The number of dependent employees constitutes about 70 per cent of all those active, but their percentage has been declining from 78 in 1983 to 73 in 1986; this suggests that in Spain as well the number of independent employees are increasing. Among dependent employees about 5 per cent are in the public sector.

According to a recent study (Secretaría General de Economía y Planificación: Condiciones de Vida Y Trabajo en España 1986:116) the number of irregular workers in construction is 17.7 per cent among the 660,000 dependent employees and 21.7 per cent among the 175,000 self-employed.

Employment in the construction sector is spread in all the provinces, but Barcelona and Madrid account for about 10 per cent of total employment each. In these two provinces, unemployment usually has been lower than the national average, but in certain provinces such as Sevilla or Cordoba unemployment is over 50 per cent.

In table 2 it is possible to see the distribution of employment in the sector. In the years considered from 1982 to 1985, there has been a drop of 16.1 per cent of total employment but dependent employees have

declined more than average (-24 per cent). As a consequence, their relative weight has fallen from 79.2 per cent to 71.7 per cent of the employment in the sector. On the contrary, self-employed have increased 24.8 per cent in absolute terms and now constitute 21.1 per cent of employment in the sector.

In analysing the economic structure of the sector in 1984 one finds that there were 10.7 employees per firm on the average and 69.8 per cent of employees were working in firms with less than 50 people; in 1980 the average firm had 15.6 employees and only 42.2 per cent were working in firms with less than 50 employees. In 1984, 50.5 per cent of firms and 14.5 per cent of employment were in firms with less than 6 employees; 42.5 per cent of firms and 40.9 of employees were in firms that had between 6 and 25 employees; in the next bracket (between 26 and 50 employees) there are 4.5 per cent of firms and 14.4 per cent of employees; in firms with more than 50 employees there are 2.5 per cent of firms and 30.2 per cent of employees. Firm size also changes according to specialization. In civil engineering, the average firm has 32.7 employees and 77 of employment is in firms with more than 50 employees. In the housing sector, where there are 58 per cent of employees, the average firm is made of 8.6 employees and in installation (*instalation montaje y acabado*) the average firm is 4.7 employees.

Participants in industrial relations

From the employers side, the main organization is the Confederación Nacional de la Construcción (National Confederation of Construction, CNC). It is member of the Confederación Española de Organizaciones

Empresariales (Spanish Confederation of Employers Organizations, CEOE). The individual firms usually join the Provincial Association, which is in general part of the Confederation at the Regional Level. This in turn joins the CNC at the national level. The firm can join the CNC directly or can also be part of the Agrupacion National Sectorial based upon activity performed by the firm, which also in its turn joins the CNC at national level.

A leading role within CNC is played by SEOPAN (Asociacion Empresas de Obras Publicas de Ambito Nacional); this group is made up of the largest construction firms (49 in 1985).

On the union side, the leading organizations are Federaci3n de Industria de la Construcci3n y la Madera (Federation of the Construction Industry and Building Materials, FICOMA), which is part of the Comisiones Obreras (Trade Unions Confederations of Workers' Committees CC.OO.). The other leading organization is the Federaci3n de Madera, Construcci3n y Afines (FEMCA), part of the Uni3n General de Trabajadores (General Union of Workers, UGT) and in the Basque provinces the Federaci3n de Construcci3n Y Madera , Federation of Construcion and Building Material (FCM) part of ELA (Euzko Langilleen Alkartasuma, Solidarity of Basque Workers).

According to the Anuario de Estadisticas Laborales, in the time period October-December 1986, when the employee representatives at the firms were elected, 115,873 employees voted in 5,209 elections. All together, 9,669 representatives were elected; these were distributed in the following way among the major unions: UGT 47.2 per cent, CC.OO. 37.7 per cent, ELA- STV (Solidarity of Basque Workers) 2 per cent (but within the Basque provinces the relative strength is the following ELA 44%, UGT 33, CC.OO 23) other unions 9.2, workers groups 3.8 per cent. It should be noted however that only 21 per cent of the dependent employees have

participated in these elections.

In Spain, the leading role in collective bargaining for the construction industry is played by the contract at the provincial level (there are 52 provinces) . There is a national contract for construction in the public sector (about 5 per cent of all employed) signed by CNC and UGT. In recent years, there have been also agreements at the national level related to the national tri-partite economic accord between employers, unions (UGT) and government. The national accord includes a wage increase based upon the expected rate of inflation. If, however, the actual price increase is higher, then there are supplementary wage increases. (International Labour Office: 1985)

Wages

According to Anuario de Estadísticas Laborales in 1986 (provisional data) in the construction sector there were 72 collective agreements for a total of 500,798 employees covered . At the firm level there were only 23 agreements for a total of 5,885 employees. As it possible to see in table 5 in the years since 1983 there has been a tendency toward the increase of contracts at the firm level; however, the latter remain a small percentage in terms of the number of workers affected by the contracts (around 1 per cent). Among the workers that had a contract at the firm level, the majority (93 per cent) are in firms with more than 100 employees (Estadística de Convenios Colectivos 1986). At the provincial level on average there were about 587 firms and 10,000 workers per agreement.

In table 5 are reported also the average increases agreed upon in

collective agreements since 1983. Because the cost of living (see table 4) has been growing at a fast pace, real wages from 1982 to 1986 have decreased 6.08 per cent.

In 1985 the average hourly wage level for blue collar workers in construction was 17 per cent less than the overall average. Looking at specific sectors, it was 23 per cent less than in manufacturing, 31 per cent less than in the auto industry, 49 per cent less than chemicals, and 12 per cent more than in textile. The difference with the other sectors is larger for the higher blue collar categories than for labourers (*Peón Ordinario*), which constitute about 35 per cent of blue collars. The wage differential between labourers and other blue collars was larger in previous years and has been reduced recently. In table 6 it is possible to see the average wage per hour in the different employee categories in construction and in the country as a whole.

In terms of difference among provinces for the labourer, the average net earning was 704,550 pesetas per month per labourer. Among the 52 provinces, 27 were in the range 775005- 634095 (10 per cent plus or minus the average 704,550), 3 provinces were below 10 per cent, and 23 were above 10 per cent. In 10 provinces net wages were 20 per cent above the average.

If we look at the agreement for the province of Madrid (about 11 per cent of total employees), there were 7 categories for blue collars plus two for apprentices. The range between the highest paid and the lowest was 100-114. For the labourer the annual wage was 967,930 pts (13.4 per cent were payment for vacations, the two extra monthly payments and other benefits). In terms of daily wages, 17 per cent was made for payment of Saturday and Sunday, 14 per cent for extra payment, 27 % for productivity

premiums and 42.5 for basic wage.

In Spain there are no institutions that collect a part of wages to be paid to employees for vacations and other benefits. As a consequence, each firm pays the amount directly to the workers in proportion to the amount of days worked.

In terms of total cost, in table 3 it is possible to see that firms are paying about 38.5 per cent of the gross salary of a labourer in contributions; in 1979 the percentage was 40.1. The main change since 1979 is the decline in percentage of the gross salary for social security contributions and the contemporary increase in insurance against unemployment and for wage loss. Employees are paying in 1986 about 6 per cent of gross earnings in contributions.

Hours

In table 7 it is possible to see the average hours agreed upon in construction are higher than the average. The national accord signed in 1985 established at 1,816 the maximum number of hours for 1986. In terms of distribution of hours agreed upon, it is possible to see from column D that while in 1985 27 per cent of workers had agreed upon 1,826 hours (that is the legal maximum), the percentage had declined to 20 per cent in 1986. It is also important to notice that wage increases are independent from the amount of hours agreed upon. In terms of average hours worked per week in 1986, the construction sector had 37.5, the industrial sector 36.6, and services 37.5; in 1981 the average hours were 38.8, 37.9 and 40.0 respectively.

In terms of overtime worked, in Estadística de Convenios Colectivos

there are data relative to the agreements at firm level in 1986 (only 5,885 workers) and 65 per cent of them had 42 hours of overtime during the year. In 1985 it was 19.

In general there are 30 days of vacations each year, including Saturdays and Sundays, plus 14 days of holidays, but there are differences from region to region. In the agreement signed in the Madrid province (signed both by UGT and CC. OO.), the amount of hours to be worked in 1987 was 1,808 and in 1989 it should be lowered to 1,792. The hours of work can be fixed between 8 a.m. to 7 p.m. Given the high level of unemployment, regular overtime hours are discouraged.

Vocational Training

In the construction industry, the vocational training performed by the social partners is minimal. This is partly due to the lack of commonly managed institutions and partly because there was not a lack of skills in the sector. It should be recalled that the level of unemployment is around 32 per cent and that the construction sector still performs the role of filter between agricultural and industrial occupations.

This does not mean that in the highly qualified skills and in particular labour markets there are no shortages. The employers association CNC has started a program of training for people that will be in charge of educational programs.

The unions also have started vocational training especially in the area of safety and health. In view on increasing vocational activity courses for future educators are also planned.

In 1985, in the construction industry there were 311 courses based on

the Plan National de Formación e Inserción Profesional. These courses were 6.2 per cent of total and were attended by 3,301 people (5.6 per cent of total). In proportion to the active population, only 2.85 per thousand attended a course. This proportion is the lowest among all the major sectors. However, in the rest of the industry the level was 6.08 per thousand (Mercado de Trabajo en España 1985).

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Table 1 Participants in the labor force, employed and unemployed in construction and industry

year	Construction		Industry		Total
	active (000)	empl. rate	unemp. rate	unemp. rate	unemp. rate
1977	1,402.3	88.5	11.5	3.2	6.3
1978	1,362.8	85.1	14.9	4.8	8.2
1979	1,351.5	80.4	19.6	6.3	10.4
1980	1,311.7	75.4	24.6	8.3	12.6
1981	1,331.8	73.0	27.0	11.2	15.3
1982	1,311.4	71.6	28.4	12.9	16.9
1983	1,320.9	69.4	30.6	13.6	18.2
1984	1,238.0	63.3	36.7	16.0	21.6
1985	1,176.2	67.2	32.8	15.6	21.9
1986*	1,184.2	68.3	31.7	15.3	21.4

Source: España Anuario Estadístico

* To be revised

Table 2 Employed in construction by function (in thousands)

<u>function/years</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
employers	46.4	48.1	45.7	40.4

employers with no employees	129.8	139.3	147.2	162.0

family helpers	13.0	11.1	9.3	12.7

employees	724.4	684.8	560.4	550.5
public sector	50.2	91.1	34.7	33.3
private sector	674.2	593.7	525.7	517.2

others	1.4	4.5	2.5	2.3

total	914.9	887.8	765.1	767.9

source : INE, Enquesta de poblaci3n activa en Mercado de Trabajo (1986)

Table 3 Firm and Employee (laborer) contributions as a per cent of gross earning in 1986

	Firm	Employee
Social security	24	4.8
vocational training	.6	.1
unemployment	5.2	1.1
wage guarantee	1.1	---
accident	7.6	---

Total	38.5	6

Source: Seopan

Table 4 Index of price increases from 1976 to 1986

Year	index	%change
1976	50.2	--
1977	62.5	24.5
1978	74.8	19.7
1979	86.6	15.8
1980	100.0	15.5
1981	114.6	14.6
1982	131.1	14.4
1983	147.0	12.2
1984	163.6	11.8
1985	178.0	8.8
1986	192.1	7.9

Source: ILO

Table 5 Collective agreements in Construction, number of employees affected and percentage increases

year	1983	1984	1985	1986
Total number of agreements	67	81	73	72
Agreements at the firm level	19	31	26	23

Total employees affected (000)	517	536	454	501
Employees at firm level (000)	5.1	7.1	7.1	5.9

Average increase in construction	11.3	7.7	7	8.12

Average increase	11.4	7.8	7.4	8.11

source: Estadística de convenios colectivos (1986)

Table 6 Average Hourly Gross Earnings in 1985 (pesetas)

		Construction	Total	
White collars				
level	1	1266	1558	
" "	2	933	1082	
" "	3	877	1084	
" "	4	715	819	
" "	5	615	722	
" "	6	492	515	
" "	7	493	566	
Blue collars				
level	1	620	773	
" "	2	517	596	
" "	3	521	551	
" "	4	432	430	labourer
" "	5	191	218	apprentices

Source: España Anuario Estadístico

Table 7 Annual Hours Agreed Upon in Industry and Construction

A	B	C
1985	1814.4	1818.4

1986	1812.2	1810.5

Legenda **A** = year; **B** = annual hours agreed upon in industry;
C = annual hours agreed upon in construction

D	1985	1986
1759-1803	1%	28%
1804-1825	71%	51%
1826	27%	20%

Legenda **D**, annual hours agreed upon in construction and relative percentage of workers affected in the year 1985 and 1986

source: Estadística de Convenios Colectivos (1986)

United Kingdom

Economic activity

According to the National Economic Development Office (1988), at constant 1980 prices the value of production in the construction sector increased 6.4 per cent between 1978 and 1987. There were, however, variations in output during those years and especially in the period 1980-81 when there was a significant decline. Another important aspect to underline is the change among the components of the construction sector. The value of the new work component has declined 4.8 per cent while the repair and maintenance component has increased 30 per cent. As a result new work in 1987 constituted 60.6 per cent of all activity (in 1978 it was 68 per cent). Among new work public housing has declined dramatically (in 1987 it was 72 per cent less than in 1978); new private housing instead increased only 1.9 per cent, commercial building activity showed the strongest increase (+ 81 per cent). Within repair and maintenance the increase was particularly strong in housing repair .

For the years 1988 and 1989 the forecast for the value of output is an increase of 8 per cent and 2 per cent respectively. Any increase is also likely to be reflected in the construction of new private residences while public housing construction is likely to continue its decline. For the renovation sector the increase should continue (Euro-construct 1986).

Employment

In 1985 there were 1,491 million people working in the sector, a reduction of 14.6 per cent compared to 1975. There are, however, different trends between the self-employed and directly employed. The former group increased 29.5 per cent during the period 1975-85 while the latter has declined 26.2 per cent. As a consequence, while the self-employed constituted only 20.7 per cent of all manpower in 1975, the figure is 31.6 per cent in 1985 and had grown even more since then up to almost 50 per cent of employment.

The increase in the number of self-employed is caused by several factors. First of all, there has been an enormous increase in the number of one-person firms. In 1985 the number of one-person firms is 2.6 times the 1975 level and has reached the figure of 72,896 (43 per cent of all firms). In civil engineering 26 per cent of firms had one employee. Another related reason is the extension of labour only sub-contracting. The practice has been in the industry for many years but has increased dramatically in the recent period. The number of self-employed can be estimated by the number of employees holding the 714 form. (Since 1977, in order to prevent tax avoidance the self-employed person is required to have a tax certificate -model 714-; otherwise the contractor has to deduct 30 per cent of gross earnings to be sent to the Inland Revenue, 25 per cent from October 1988). The number of 714 certificates has increased from around 200,000 in 1978 to 350,000 in 1985 and 420,000 in 1988. To this number one has to add another 150,000 self-employed that do not hold the tax certificate. It is estimated that something like 50-60 per cent of the work is now carried out by sub-contractors (Fulcher 1986). Self-employees

working for contractors are particularly numerous in the bricklayers and carpenters crafts. While among those working directly for the public the largest group is constituted by painters (Hillebrandt 1984 : 197).

It is also interesting to consider the composition of the work force according to the type of work. Among the white collars, we find 29 per cent of administrative, professional, technical and clerical staff (APTC), up from 25 per cent in 1975. The largest group among APTC are clerical and sales staff 37 per cent, followed by managerial staff 24 per cent, foremen 16 per cent, technical staff 11 per cent and architects and engineers 8 per cent. Among blue collars, according to the Construction Industry Training Board (CITB), 65 per cent belong to crafts; this percentage has remained the same during the years and illustrates that in the sector there is a large proportion of skilled workers. The weight of different crafts has not changed and is the following: carpenters and joiners 15 per cent, bricklayers 7 per cent, mechanical equipment operators 7.5 per cent, electricians 6 per cent, and painters 7 per cent.

Finally, it is useful to notice that among the employees around 20 per cent are working directly for public authorities in direct labour organizations (DLO), and this figure has not changed over the years. This form of employment usually is favored by trade unions because of the security of employment that they can offer. On the contrary those who favor privatization are for the reduction of DLO. There has been a long debate over the level of productivity of employees working in DLO but the evidence is inconclusive given the difficulty of measuring productivity in construction (Longford 1982). Employers, however, are very concerned by the reported level of productivity in some DLO's"

Participants in the industrial relations arena

Before analysing wages, hours and training it is helpful to provide some information about the main employers and union organizations.

On the employers side, the leading organizations are the Building Employers' Confederation (BEC) with 9000 members and 2/3 of all employees. The BEC represents general building interests but it has specialist affiliates grouped together in the Federation of Building Sub-contractors in order to cater for specific needs. The other leading organization is the Federation of Civil Engineering Contractors (FCEC) which has about 400 members and represents the vast majority of employers that operate in Civil Engineering sectors (the largest 100 firms are members also of BEC). It should be mentioned however that also in the Civil Engineering Industry 73 per cent of the 6624 firms have less than 14 employees. In the construction industry there are several other trade organizations (about 200); among them we must mention the Federation of Master Builders (FMB), which represents the smaller builders and has the largest membership of any of the organizations.

On the employees side, the leading union is the Union of Construction, Allied Trades and Technicians (UCATT), formed in 1971 from many amalgamated and craft unions (Wood 1979). UCATT has 250,000 members in 1986 (there has been a loss of 25,000 members since 1976) and is the ninth largest union in the country. Another union with members among construction workers is the Transport and General Workers' Union (TGWU), which has about 55,000 members in construction, both among transport workers and site operatives. The General and Municipal and Boilmakers and Allied Trades Union (GMBATU) also has members mostly among non-craft

employees often working for Public Authorities or producers of materials used in construction. Finally, one should mention the Furniture, Timber and Allied Trade Union (FTAT), which has members in the sector. Overall, the level of union density could be estimated around 30 per cent in 1985. The national average is around 40 per cent.

For the purpose of collective bargaining, employers' and employees' organizations usually form a Council or Board. The National Joint Council for the Building Industry (NJCBI), on the employers side is composed by the BEC and the National Federation of Roofing Contractors; on the union side are UCATT, GMBATU, TGWU and FTAT. Usually negotiations for new agreements are concluded in 3-4 meetings and the agreement is renewed every year. In the Civil Engineering sector we have the Civil Engineering Construction Conciliation Board (CECCB) with the FCEC on the employers' side; on the union side the leading organizations are TGWU and the General Municipal Boilermakers and Allied Trade Unions (GMBATU) and UCATT. The NJCBI and CECCB combine to form a Joint Board to determine the main items of the agreement, including basic wages, normal hours of work and holidays. The FMB is not part of the above mentioned institutions and it negotiates an agreement with the TGWU in the Building and Allied Trade Joint Industrial Council (BATJIC). Others joint Boards exist in the electrical and in the plumbing sectors formed by the relevant employers' and employees' representatives.

Wages

Statistical data

In the analysis of wages a rich source of information is also furnished by Housing and Construction Statistics (1985).

In tab. 1 it is possible to consider the evolution of average gross weekly earnings for male manual workers in 1980 prices (the manual worker considered is aged 21 and over and pay was not affected by absence). Between 1975 and 1985 there was only a 1 per cent increase. The increase was higher if average hourly earnings excluding overtime are considered (+5.6 per cent). This is due to the decline in overtime from 6.27 hours each week to 4.9 in the period considered

Overtime constituted an average of 12 per cent of weekly earnings without significant changes over the years. There has been, instead, a reduction in the numbers of employees that received overtime (-16.7 per cent). Payment by result constituted on the average 13.3 per cent of weekly earnings and there was no change in recent years. Finally, it is important to mention (with regard to the distribution of earnings) that 10 per cent of workers had earnings which exceeded average earnings by at least 43.5 per cent, while, 10 per cent of workers had earnings that were at least 35 per cent less than average earnings.

For non-manual workers the evolution of pay from 1975 to 1985 brought a 12.9 per cent increase in real terms. The increase enlarged the difference between manual and non-manual workers from 100-119 to 100-133. For non-manual workers overtime constitutes a smaller percentage of earnings (only 2.5 per cent) in 1985 but the trend is towards

an increase. Finally, the distribution of earnings is more spread out among the non-manual employees; in fact, 10 per cent earned 41 per cent less than the average while 10 per cent earned 49 per cent more.

The Housing and Construction Statistics (1986) also provides data related to the distribution of earning among crafts. For supervisory personnel (foremen), there has been an increase larger than the average and consequently in 1985 their earning was 19.6 per cent above the average while in 1975 it was 16.7 per cent. In real terms, their increase was 3.6 per cent. The two largest crafts (bricklayers and carpenters) have lost in real terms 8.9 per cent and 3.3 per cent in weekly earnings between 1975 and 1985. If the average hourly earning excluding the effect of overtime is considered then the loss is smaller: -4.6 per cent and -0.3 per cent respectively. At the end of the spectrum labourers had a loss in real hourly earning of 3.2 per cent but when the effect of overtime is excluded there is actually a gain of 2.1 per cent.

Finally, let us consider the evolution of weekly earnings in the construction industry compared with the average of the other industries and services. The evolution of earnings is less favourable in construction than in the rest of the economy. According to data furnished by Eurostat, the rank of gross hourly earnings of manual workers in construction went from 23rd out of 45 to 26th in 1985. For this reason while in 1975 average earnings were about at the same level, in 1985 construction was 4.2 per cent lower (3 per cent when the effect of overtime is excluded). Also, non-manual workers lost ground compared with the others sectors and while their earnings were only 2.6 per cent lower in 1975, the difference was -7.4 per cent in 1985 (excluding overtime the difference went from -5 per cent to -10.6 per cent). If hourly gross earnings for

manual employees are considered according to data furnished by Eurostat (see table 10 in the introduction) in construction there was a slight advantage in the early seventies (+4 per cent) vis à vis of manufacturing but in 1986 the situation was reversed and construction was 1.3 per cent behind. When hourly wages are corrected for price increases between 1980 and 1986, there has been an increase of 9 per cent in construction and 15.7 per cent in the industry as a whole.

Wages as established by the contract of employment, based on the national agreements.

Another important aspect to consider is the level of wages as established by the agreements signed by employers and unions. The two leading working rule agreements examined are those approved by the Civil Engineering Construction Conciliation Board and the National Joint Council for the Building Industry.

In terms of wages, there are no differences among the two agreements. The two most important elements to consider are the basic rate (L. 110.56 weekly for craft operative and L. 94.18 for Labourers in 1988); to that one has to add the Guaranteed Minimum Bonus (L 15.01 for craft operatives and L.12.67 for Labourers). The two elements together form the Guaranteed Minimum Earnings (GME). The ratio between the crafts operatives and labourers has remained the same during the years (100 to 117). In real terms, in the period 1981-87 the GME approximately kept pace with inflation and there has been a small increase. The level established by the national agreement is only a minimum and the wages are usually higher, especially for crafts in high demand or in areas where

labor is more scarce. According to a recent survey (Guest: 1987), 55 per cent of bricklayers in most regions are on basic rates, but in the southern area the percentage drops to 28 and in London it is only 9. The pay per hours for the same craft ranges from L. 3 to L. 4 in most regions but can reach L. 6.25 in the London area. For these reasons in 1985 the weekly earning excluding overtime reported by the Housing and Construction statistics is 25 per cent higher than the contractual wage for both craft operatives and labourers. According to a survey conducted by the Labour Research Department (Bargaining Report 58 July 1987 cited in UCATT 1987: 6), company settlements had on average for carpenters and joiners a wage level 33 per cent higher than the GME.

The agreement also establishes extra payments for continuous extra skill or responsibility mostly connected with the use of special power machine (concrete mixers, excavators). There are daily travelling expenses related to the distance to work. Extra payments are linked also to work in difficult conditions and there is a tool and clothing allowance.

Under the Building agreement (NJCBI) overtime is paid at time and a half for the first three hours between Monday to Friday and double time afterwards. Work during Saturdays is paid at time and a half until 4 pm and double-time afterwards. Slightly different overtime arrangements apply in the engineering agreement. Double-time is also paid for Sundays and until starting time Monday mornings. Premium wages rates are also applied to night work and shift work.

Other Benefits

Wages during holiday, during sickness and other benefits such as

retirement or death benefits are an important element in the wage package. Those provisions are, however, linked to the social security legislation and it will be impossible to give a detailed analysis of all the provisions. Here there will be only an outline of the main provisions agreed upon by the parties regarding holidays, retirement, death and sick pay.

Annual Holidays

Because job-changing in the construction industry is frequent, in order to ensure a holiday period to the person employed, there is a stamped-card system. According to this system each employer pays for a stamp for every week of work and puts it on a card that is carried by the employee when he changes job. In 1988, the value of a stamp was L. 14.45 (13.15 for the holiday credit and 1.30 for the retirement benefit, death benefit and accidental injury benefit scheme). The holiday scheme provides for 21 days of annual vacation that are distributed as such: 7 days around Christmas, 4 days at Easter and two weeks during the summer.

The Retirement and Death Benefit

A lump sum is given for the operatives that retire. The sum is calculated from the number of holiday stamps that the operative has received after April 1982. The retirement payment is calculated since August 1987 on L. 3.10 for each week of of service in the industry after 1982. In case of death there is a payment of a maximum of L.6,500 and an additional 6,500 if death is caused by accident at work or on the way to or from work.

Sick Pay

After three days of sickness the employer has the legal statutory duty to pay L.47.20 a week for 28 weeks. In addition to this provision the agreement provides L.47.05 for 10 weeks for the employees that have at least four weekly credit stamps in the previous eight weeks.

Hours

According to the Housing and Construction Statistics weekly hours of work for manual workers in 1985 were 44.4 (overtime on average was 4.9 per worker and 51 per cent had received overtime pay). In 1975, weekly hours were 46.7 (overtime 6.2 hours and 61.2 per cent of workers had received overtime).

For non-manual employees hours have remained stable around 39.8 (overtime 1.2, but there is an increase in the number of employees that have received overtime in 1985 16 per cent). In the New Earnings Survey (April 1987) published by the Department of Employment in Civil Engineering there was a total of 49.9 hours per week including 10.5 hours overtime, in building 45.6, including 6.1 hours overtime. The Working Rule Agreement (1986 edition) establishes 39 working hours (8 from Monday to Thursday and 7 hours on Friday).

Marsh (1981), in research done in 1979, found that for the people that were working overtime the number of hours were on average 9.8, but for certain crafts, for instance Scaffolders or Mechanical operators, it could

reach 13 hours.

According to Eurostat (see table 15 in the introduction) each employee worked 1976 hours in 1984 (-6.8 per cent from 1975). This is the highest level among the countries for which there are Eurostat data (Spain is not included yet).

Vocational training

Data

According to the Construction Industry Training Board (CITB) there were 49,200 principal craft trainees in 1984. This means a reduction of 37 per cent compared to 1975. The reduction is higher than the decline in the number of operatives, which is 31.1 per cent during the same period. As a consequence while in 1975 there was one trainee every 5.9 craft operatives, in 1984 the ratio was one in 6.5. About 58 per cent of all trainees are in the three major crafts of carpenters, bricklayers and electricians which constitute only 44 per cent of all crafts. The proportion of trainees in the different craft varies, and while there is one trainee for 3.5 electricians, the figure is, for instance, 1/25 for construction plant operators.

Institutional framework

The CITB plays the leading role in training in construction (Grant and Rainbird 1985). Its structure is tripartite and is made of employers, trade unions and educational interests' representatives. All members are

appointed by the Secretary of State after consultation with the interest groups. Within the CITB there are 8 committees for the different sections of the industry (Committee for Bricks, Building, Scaffolding, Civil Engineering, Specialist Building, Electrical Engineering, Mechanical Engineering). There is also a coordinating committee on management supervisory and safety training and one for group training and new training initiatives. Each committee makes recommendations and suggests the amount of levy that are usually approved by the Board. Through the levy, the CITB collects up-to-date statistics about the sector which are used for making training decisions. In 1984, the training budget was about L. 65 million (5 millions were mainly spent on subsidies for the four CITB training centers; in 1984 CITB had a staff of 750 employees while in 1969 they were 1200).

The activities of the CITB are financed mainly through a consensus levy (maximum 1 per cent of the payroll, 2 per cent on payments for labour only sub-contracting) paid by employers that have a payroll larger than L. 15,000. In 1983-84 the CITB sponsored 18,000 youth training scheme trainees. The reduction in the number of medium sized firms has reduced the resources available. In 1984 there were about 30,000 firms contributing to the CITB out of 110,000 that were eligible.

There has been an effort to enlarge the number of enterprises contributing, but most of the firms in that category are small ones.

Programmes

The main type of craft training programme present in the construction industry is linked to the vocational schooling system that is

present in the country and to the training programmes sponsored by the Government.

In the UK, the apprentice programmes have a long history. The curriculum was not tailored toward a skill testing certificate. The system was mostly based on time served (three years since 1973), with some time off for school training. In recent years there have been changes linked to the Youth Training Scheme (YTS) introduced by the government in 1983. YTS is now structured in a two year programme with a minimum of 13 weeks of the job training in the first year and 7 in the second. The programme is aimed at introducing youth into the work environment and is designed to give general training. The year spent in the YTS is considered as half a year of the traditional construction training programme for building crafts. Other sectors give the full one year credit. (Prais and Steedman 1985). In the construction sector the major YTS is run by CITB and provides 20-24 weeks off the job training in the first year and 8-12 weeks in the second for building craft trainees. In recent years there has also been more emphasis on the obtainment of a formal certificate and skill testing.

In terms of relative pay the rate established for apprentices are different according to the age and the type of training. A building craft apprentice under 19 receives 40 per cent of the GME of a craft operative during the first six months; in the next six months the percentage reaches 54, afterwards 68. After the passing of the skill test the percentage is 82 and for the remaining period it is 93. Rates are higher in the first year for workers over 19 years of age. In the agreement there are also rules related to vacations, travel, pay during sickness and tool allowance.

Training programmes have been in a period of change in recent years but many problems remain. First of all the reduction in employment, the

greater percentage working now in small units and the increase in self-employment have reduced the opportunities for training that were carried out mainly in the larger sized firms. Even though sub-contractors are sometimes compelled by contractors to have a certain number of trainees the loss of training opportunity is considerable. It is also true that resources available for the CITB decline with the decrease in the number of employees that work in the firms that pay the levy (there were about 30,000 firms that contribute to the CITB in 1984 out of 110,000 firms).

Another problem in the sector is that changes in methods of construction such as an increase in off-site pre-fabrication have had an effect on training requirements (this applies more to building than to civil engineering). The amount of time that self employed operatives can spend on instructing trainees is restricted because of commercial pressures. To this one should add the consequences of specialization that limit the range of experiences that can be offered to apprentices.

Finally the poor image of the sector and the lack of security of employment make difficult to attract and maintain young workers in the trade. Those are not new issues but they have yet to be solved.

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Table 1

Average Gross Weekly Earnings for Male Manual Workers in 1980 prices

Year	Earnings
1975	109.6
1976	108.6
1977	103.2
1978	106.5
1979	107.5
1980	109.7
1981	108.0
1982	108.1
1983	110.0
1984	111.9
1985	110.7

Source: Housing and Construction Statistics 1975-1985

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by Claudio Pellegrini

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