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Job Losses, Unemployment Duration and New Jobs in Spain

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Abstract. This article focuses on workers who permanently lost their jobs for involuntary reasons in Spain. We use a 1985 representative survey of the Spanish labor force containing retrospective questions related to workers' mobility. We evaluate several characteristics of job losers, as compared to other unemployed workers with experience by the end of 1985. Thereafter, an analysis of job losses addresses the following questions: (1) What types of jobs were lost? (2) How did workers perform after their job loss? (3) How long have they been out of work? (4) What are the characteristics of the new jobs found?

1. Introduction

From 1975 to 1985, almost 2 million jobs were lost in Spain. The unemployment rate soared to 22% by the end of 1985, up from 3.7% in 1975¹. Yet not many microeconomic studies have been carried out to assess the dimensions of such compelling labor shedding. Little attention has been paid to job losses in Spain, in terms of manpower effects and labor market outcomes. Lack of data may be partly blamed for the shortage of research in this area. Fortunately, in the last quarter of 1985, the Spanish Government sponsored a nation-wide representative survey, the Living and Working Conditions Survey (hereinafter ECVT), which asked workers retrospective questions about their job changes, and thus provides extensive information about their mobility.

All workers included in the survey who had changed firms at least once reported the length of the last spell of unemployment, the characteristics of their previous job and the reason for their job change. The

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ECVT also provides extensive information about the status of job losers, whether employed, unemployed or out of the labor force, as taken in the last quarter of 1985, the time of the survey interviews. This information allows us to assess how well workers fared after their job loss. Since complete as well as incomplete spells of unemployment were reported, further inquiry into the types of jobs found by job losers is possible.

We focus on a sample which is comprised of workers who lost their jobs for any of the following five reasons: 1) individually fired, 2) firm bankruptcy, 3) cut-back in work, 4) dismissed after a probationary period and 5) end of contract². As an initial step in this study, we examine several characteristics of job losers, as compared to other unemployed workers with work experience at the end of 1985³. Thereafter, a specific analysis of job losers addresses the following questions: a) What types of jobs were lost? b) How did workers perform after job loss? c) How long have they been out of work and actively looking for a job? d) What are the characteristics of the new jobs found?

By measuring the characteristics of the lost jobs, we more thoroughly understand the underlying employment adjustment process. By evaluating how well the job losers fared, we obtain valuable results relating to the costs of adjustment burdening the labor force. By considering the duration of unemployment for job losers, we obtain a more comprehensive indication of these workers' difficulties in regaining employment. Finally, the characteristics of the new jobs, in contrast with those lost, reflect the structural changes that took place in the Spanish economy between the mid-70s and the mid-80s.

An analysis of roughly four million job losers leads us to the following mean results: 1) By the end of 1985, about two million workers were employed⁴, eight hundred thousand had left the labor force, and more than one million workers were still in search of work. 2) Gender, age and education have emerged as important factors in explaining not only how well job losers fared, but also the incidence of job losses. 3) Tenure in the previous job appeared to be a significant variable which negatively affects the probability of re-employment among job losers. 4) A notable increase of farm workers as well as managers and independent workers has been observed among job losers who found new jobs.

2. The Incidence of Job Losses

A cross-section labour force survey allows us to look at the job losers at a particular point in time⁵. Responses to retrospective questions per-

mit an evaluation of job losses that took place during a specified period of time. This information presents problems related to the sample scheme and the memory of interviewees. Moreover, any conclusion from the analysis of data must be conditioned on the state of the business cycle.

With these caveats in mind, we attempt to gauge the incidence of job losses in Spain. Workers who lost their jobs and remained unemployed by the end of 1985 had been compared with other experienced workers who were also unemployed at the same time. Table 1 illustrates this analysis by gender, age and education.

Table 1. Incidence of Job Losses Among Unemployed Workers by Gender, Age and Education

	Non-Job Losers			Job Losers %	Total	Number Unempl. (000s)	Unempl. Rate
	Volunt. Quit %	Marriage or Birth %	Other Reasons %				
Female	15.96	24.25	15.04	44.76	100	772	17.7
Male	9.92	0.16	16.04	73.88	100	1,046	11.5
14-19	26.11	0.00	19.09	54.80	100	164	15.5
20-24	14.37	3.40	19.18	63.06	100	376	20.8
25-54	10.55	15.11	12.93	61.40	100	1,095	12.7
55-64	7.77	5.46	17.66	69.11	100	167	9.2
> = 65	10.02	9.66	60.22	20.10	100	15	8.2
Illiterate	8.18	8.77	29.03	54.02	100	87	20.2
< 6 Years	9.99	10.95	17.90	61.16	100	536	14.8
Primary	11.03	11.79	15.95	61.23	100	538	15.2
Pre-Secondary	14.99	12.20	11.49	61.32	100	293	13.4
Secondary	17.41	5.30	10.17	67.12	100	104	9.6
Vocational	19.87	5.25	11.90	62.99	100	160	16.1
Pre-Univer.	12.10	17.04	9.31	61.55	100	36	5.8
University	14.92	3.58	13.58	67.93	100	52	6.6
Not Available	8.67	12.29	26.02	53.01	100	12	8.4
Total	12.49	10.39	15.61	61.51	100	1,818	13.5

Notes: Experienced workers unemployed at the second quarter of 1985.

The unemployment rate refers to persons with work experience.

Other reasons include retirement, military service, and not specified.

Source: ECVT.

According to the ECVT, among the estimated 1.8 million experienced workers unemployed in Spain in the fourth quarter of 1985, 61.5% were job losers (see Table 1). The proportion of male job losers was 73.9% and 44.8% for females. Unemployed workers aged 55-64 appear to suffer the greatest proportion of job loss at 69%⁶. It also becomes evident in Table 1 that among workers under 65, age notably reduces the likelihood of quitting the job.

Table 1 indicates that education reduces the incidence of unemployment among experienced workers⁷. However, it is not evident how education relates to the probability of being a job loser among unemployed workers⁸. The rate of job separations because of marriage or birth among workers with pre-university degree is attributable to the high proportion of women among experienced unemployed workers with this level of education.

3. Characteristics of Job Losers

We should keep in mind some characteristics related to the sample of job losers used throughout this analysis. First, as indicated, workers were asked if they had changed firms any time before the survey date. Those who responded in the affirmative were further questioned about the reason for their job loss. Since many workers had changed firms more than once, they were asked to focus on their latest job change. This means that some workers who reported not to have changed firms for any of the five reasons we consider for job loss may have experienced job loss outside the considered sample scheme. Consequently, the sample scheme tends to underestimate the number of job losers as compared with that of reporting any job loss over a certain period of time. Second, the survey was made at the end of a ten-year recession period. This implies that it is likely to be more representative of job losses in the second phase of the recession, namely, 1981-1985. However, in the first phase, 1975-1980, the level of employment decreased most significantly. Third, the labor force status is assessed at survey date. Some workers may have temporarily withdrawn from the labor force or lessened the intensity of their job search. This turns out to be more apparent among workers who, when questioned, have had a history of long-term unemployment.

Figure 1. Labor Force Status of Job Losers by Gender.

3.1. Demographic Characteristics

Gender and age are relevant factors in identifying characteristics among job losers. We note the following findings (see Figure 1 and Table 2).

The proportion of women re-employed at survey date is 32%, compared to 61% for men. The percentage of unemployed workers for both sexes is about 27.5%, meaning that about 40% of females had left the labor force after job loss. The re-employment⁹ rate increases with age among male workers under 55 years. For women, the highest reemployment proportion corresponds to the 20-24 age interval¹⁰. These results indicate that women markedly lost ties to the labor market when they lost their jobs. Such an outcome is possibly attributable to the fact that performing work in the home became a pressing need during women's childbearing years.

Table 2. Status of Job Losers by Gender and Age

Females				
	Employ. %	Unempl. %	Out of L.F. %	Number (000s)
14-19	35.83	44.45	19.72	107
20-24	42.61	37.65	19.74	268
25-54	33.50	27.08	39.42	669
55-64	17.25	11.55	71.20	134
> = 65	2.78	0.60	96.62	83
Total	31.88	27.40	40.72	1,261

Males				
	Employ. %	Unempl. %	Out of L.F. %	Number (000s)
14-19	54.88	30.18	14.93	139
20-24	59.03	33.20	7.77	411
25-54	68.15	27.84	4.01	1,766
55-64	42.40	24.41	33.19	410
> = 65	7.34	3.52	89.14	74
Total	60.78	27.60	11.62	2,800

Table 3 documents that less educated women have a greater propensity to leave the labor force, and are less likely to be re-employed. Education has no clear effect on males' propensity to leave the labor force while greater education strongly increases the probability of re-employment. It is remarkable that workers with a pre-university degree¹¹ fared the best. Male workers with vocational education fared worse than male workers with primary education. These results may indicate the type of qualifications that Spanish firms needed and the failure of vocational education to meet them. Another explanation can lie in the high heterogeneity of workers who reported this level of education.

Table 3. Status of Job Losers by Gender and Education

Females				
	Employ. %	Unempl. %	Out of L.F. %	Number (000s)
Illiterate	22.58	21.81	55.61	37
< 6 Years	27.88	25.23	46.89	183
Primary	30.78	32.49	36.73	254
Pre-Secondary	37.14	30.22	32.64	181
Secondary	37.99	35.43	26.58	91
Vocational	49.69	32.86	17.45	87
Pre-Univer.	60.92	21.93	17.15	41
University	49.32	31.42	19.25	54
Not Available	45.82	44.86	9.32	7

Males				
	Employ. %	Unempl. %	Out of L.F. %	Number (000s)
Illiterate	59.59	32.81	7.60	68
< 6 Years	62.89	32.36	4.75	650
Primary	66.48	29.85	3.67	633
Pre-Secondary	68.42	27.12	4.46	326
Secondary	71.93	20.01	8.06	146
Vocational	64.38	30.66	4.96	186
Pre-Univers.	82.08	15.44	2.48	73
University	72.14	22.54	5.32	77
Not Available	70.89	17.35	11.76	17

Note: Workers between 20 and 54 years of age.

3.2. Characteristics of the Previous Job

Among characteristics of the previous job we consider sector, occupation and tenure. As Table 4 shows, the construction sector accounts for more than one-quarter of males aged 20-54 who lost their jobs. By contrast, construction workers comprised about 10% of total male employees at the end of 1985. Other manufacturing industries also contributed greatly to job losses in Spain. Prime age males who were previ-

ously employed in the transportation and communications sector seem to perform worse than their counterparts previously employed in other industries. The percentages of prime age male workers who left the labor force is markedly high among those previously employed in finance/insurance and other services. A more thorough investigation disclosed that these male workers who left the labor force were significantly younger than other workers.

Table 4. Status of Job Losers by Sectors and Occupations of the Previous Job

	Employ. %	Unemp. %	Out of L.F. %	Number (000s)
Farming	70.74	25.03	4.23	207
Energy/Water/Gas	65.91	31.52	2.56	55
Non-Energy/Mining/Chem.Ind.	74.66	25.34	0.00	34
Engineering	69.98	24.28	5.74	195
Other Manufac. Industries	64.33	31.34	4.34	370
Construction	65.04	31.30	3.66	586
Trade/Hotel/Repairs	70.80	24.81	4.38	305
Transp./Communications	59.02	37.29	3.69	91
Finance/Insurance	70.31	19.47	10.22	75
Other Services	60.29	31.52	8.19	191
Unclassified	65.94	28.27	5.79	67
Farm Managers	82.67	12.20	5.13	13
Farm Workers	69.78	25.42	4.80	171
Non-Farm Manag/Indep.Work.	90.59	8.28	1.13	23
Profes./Tech. Workers	74.10	23.19	2.72	62
Service/Clerical Laborers	72.67	23.34	3.99	252
Qualified Laborers	67.01	27.94	5.06	755
Unqualified Laborers	63.17	32.69	4.14	638
Rest of Service Workers	59.45	33.29	7.26	119
Unclassified	60.03	33.95	6.02	144
Total	66.43	28.85	4.72	2176

Note: Male workers between 20 and 54 years of age.

As indicated by occupations in the lower panel of Table 4, more skilled workers fared better than less skilled workers. This result is consistent with more skilled workers' adaptability to structural changes.

Table 5. Status of Job Losers by Tenure in the Previous Job

All Workers					
Months	Employ. %	Unempl. %	Out of L.F. %	Number (000s)	Distrib. %
1-6	53.54	30.85	15.60	1,172	28.9
7-12	58.34	27.83	13.83	462	11.4
13-24	56.86	27.61	15.52	495	12.2
25-48	55.20	23.38	21.42	442	10.9
49-96	55.51	20.57	23.92	499	12.3
97-180	45.82	27.22	26.96	451	11.1
> 180	36.21	25.95	37.84	360	8.8
Not Avail.	37.24	38.55	24.21	179	4.4
Male Workers 25-45 Year Old					
Months	Employ. %	Unempl. %	Out of L.F. %	Number (000s)	Distrib. %
1-6	67.94	30.33	1.73	348	24.92
7-12	72.19	25.09	2.72	183	13.13
13-24	73.88	23.74	2.38	201	14.41
25-48	74.62	22.00	3.38	166	11.89
49-96	75.39	20.27	4.34	201	14.39
97-180	64.03	30.68	5.29	183	13.09
> 180	60.60	33.37	6.03	69	4.98
Not Avail.	57.58	39.37	3.05	45	3.20
Total	70.01	26.74	3.25	1,395	100.00

The time period the previous job was held is an additional aspect to be considered. Tenure in the previous job is an indicator of the worker's specific human capital. Hence, tenure expresses the burden resulting from job loss. Table 5 reflects the status of job losers by months of previous job tenure. It is rather surprising that approximately 53% of job losers were in the previous job for two years or less. About 29% of job losers retained their jobs for six months or less. Consequently, there appears to be a great number of workers with short-term job durations¹².

Table 5 also illustrates the difficulties that long-tenured workers have in finding jobs. Workers with prior job tenure lasting from seven to

ninety-six months are more likely to be re-employed. However, workers with more than eight years of tenure had greater difficulty in finding work than other job losers. More specific skills and less sluggish wages among long-tenured workers could explain the observed relationship between tenure and the probability of re-employment.

3.3. Reason for and Year of Job Loss

The ECVT information on reasons for job loss reveals two noteworthy results: (a) Workers who fared worse are those individually fired and those laid-off as a result of a cut-back in work (see Table 6). Workers affected by permanent lay-off are presumably the least valuable to the firm. The fact that they were dismissed might have damaged their work prospects. (b) The proportion of workers leaving the labor force is greatest among those who lost their jobs because of bankruptcy. An explanation can be that older workers are more likely to stay with the same firm until it closes down. In such case, their incentive to retire early increases in the face of industrial restructuring¹³.

Table 6. Status of Job Losers by Reason for and Year of Job Loss

	Employ. %	Unempl. %	Out of L.F. %	Number (000s)
Indiv. Fired	47.43	30.03	22.54	739
Bankruptcy	52.85	20.33	26.82	1,190
Cut-Back in Work	45.77	30.84	23.39	298
After Prov. Period	56.17	28.40	15.44	78
End of Contract	53.76	30.78	15.46	1,755
Before 1981	81.72	11.78	6.50	1,022
1981-1983	55.20	33.95	10.85	813
1984	45.97	42.61	11.42	519
1985	39.57	44.55	15.88	894
Not Available	27.97	12.57	59.45	812

The lower panel of Table 6 shows the status of job losers over years of job loss. The decline in the proportion of re-employed workers is due, in part, to lengthier job search time available to the earliest job

losers. However, the more severe re-employment drop among workers who lost their jobs during the period 1981-83 reflects that labor market conditions worsened as the unemployment rate soared¹⁴. This employment dynamics is also reflected by the relatively high number of workers who, in losing their jobs after 1980, left the labor force.

We now consider the reason for job loss in relation to the year of its occurrence (see Table 7). Among more recent job losers, we observe a decrease in the proportion of workers individually fired or who lost their jobs due to either bankruptcy or cut-backs in work. On the other hand, the number of workers dismissed after end of contract noticeably increases over time. This result indicates that the harshest adjustment period which the Spanish economy experienced had taken full course by 1985. At the same time, new forms of employment, i.e., temporary contracts, went into effect¹⁵.

Table 7. Status of Job Losers by Year and Reason for Job Loss

	Indiv. Fired %	Bankruptcy %	Cut-Back in Work %	After Prov. Period %	End of Contract %
Before 1981	18.95	38.63	7.84	1.39	33.19
1981-1983	18.37	33.04	9.25	1.54	37.80
1984	17.74	25.01	7.10	2.35	47.80
1985	15.38	14.54	5.54	2.38	62.16
Not Available	20.53	32.83	6.96	2.18	37.50
Total	18.21	29.30	7.35	1.92	43.22

4. Labor Market Experience After Job Loss: Unemployment Duration

Since unperceived earnings accumulate and human capital deteriorates, the cost of job loss increases with time elapsed without work. This section seeks to identify the workers who had the least success in regaining employment. Long-term unemployed workers are hit by job loss so severely that some withdraw from the labor force.

The ECVT provides information on duration of unemployment, reporting both complete and incomplete spells. No other Spanish data source contains fully elapsed durations of unemployment¹⁶. However, some

limitations of these retrospective data should be taken into account: First, as pointed out by Akerlof and Yellen (1985), less costly events are less likely to be recalled. In our sample, job losers who had to change firms are likely to have endured major financial losses. Second, some problems related to the sample selection can bias the reported spells of unemployment. For example, at the end of the recession period, long-term unemployed workers are likely to have fared badly after job loss, meaning that their unemployment duration tends to be unusually long. Third, temporary withdrawals from the labor force after job loss make recorded duration of unemployment a less accurate measure of the period workers spend actively looking for work.

4.1. Duration, Gender and Education

Table 8 illustrates the distribution of job losers by duration of unemployment¹⁷. About 17% of all job losers reported to have moved from one job to another without suffering an unemployment spell. Over 25% of workers spent between one and five months out of work. Both percentages are greater for males, indicating that women have a longer unemployment duration than men.

Table 8. Distribution of Unemployment Duration Among Job Losers (*Complete and Incomplete Spells*)

Duration (Months)	All workers %	Females %	Males %
0	17.24	15.76	17.77
1-5	25.83	24.25	26.41
6-11	12.44	11.94	12.62
12-17	12.64	11.34	13.11
18-23	5.23	4.09	5.64
24-35	10.69	10.51	10.76
36-59	9.39	10.23	9.08
60-120	6.53	11.88	4.60
Total	100.00	100.00	100.00
Mean Duration	19.1	23.8	17.4
(S.D.)	(22)	(27)	(17)

Note: The mean duration is calculated only for workers reporting $0 < \text{duration} \leq 120$.

Figure 2. Unemployment Duration of Job Losers by Gender and Education.

Table 8 also shows the average duration of unemployment, which has been calculated for those workers who reported spells of unemployment between 1 and 120 months. The question on duration of unemployment was formulated in the following terms: "After leaving this job, how long did you spend (or are you) out of work and actively looking for a job?" We found that the mean duration of unemployment is about 19.1 months. The figure is 23.8 months for women and 17.4 months for men. This is a fairly large differential which cannot be attributed solely to the fact that women have a harder time finding jobs. The opportunity costs of women out of work have been considered lower than that for men. The reason lies in the role of women as secondary earners in the household, as well as in the perception of women as traditional performers of housework and childcare.

Figure 2 reflects the mean duration of unemployment according to education for both sexes. As mentioned earlier, education increases

workers' likelihood of finding work. Consequently, education reduces the duration of joblessness. A more pronounced trend in this regard seems to be more highly associated with women than with men. As education is correlated with women's labor force participation, it is not surprising that more educated women fared better than less educated women, partly because education increases their job search intensity.

4.2. Reason for Job Loss

Complete and incomplete duration of unemployment by reasons for job loss is shown in Table 9. The mean duration of unemployment ranges from 14.3 months for workers whose contracts ended, to 24.3 months for workers who suffered cutbacks in work. Persons who lost their jobs due to bankruptcy showed to have a much greater mean duration of unemployment than remaining persons among those with incomplete spells of unemployment: 32.2 months for those unemployed and 34.4 months for those out of the labor force¹⁸. However, the mean unemployment duration for re-employed workers who lost their jobs because of bankruptcy is close to the overall mean duration of unemployment. This result tells us that some job losers found jobs fairly quickly after their firm shut down¹⁹.

Table 9. Unemployment Duration Means (S.D.) by Reason for and Year of Job Loss

	Employ.	Unempl.	Out of L.F.	Total
Indiv. Fired	19.1 (21)	23.7 (22)	29.8 (33)	22.0 (23)
Bankruptcy	17.3 (18)	32.2 (27)	34.4 (28)	23.7 (24)
Cut-Back in Work	22.4 (28)	24.7 (21)	30.7 (20)	24.2 (25)
After Prov. Period	14.1 (15)	19.4 (20)	24.0 (22)	16.9 (18)
End of Contract	11.7 (16)	16.0 (19)	21.7 (26)	14.3 (19)
Before 1981	22.4 (25)	70.5 (27)	77.9 (24)	33.6 (33)
1981-1983	16.9 (12)	32.8 (9)	31.2 (10)	24.5 (13)
1984	8.2 (5)	14.5 (3)	14.2 (3)	11.8 (5)
1985	3.4 (2)	4.4 (3)	4.7 (3)	4.7 (3)
Total	15.5 (19)	21.8 (23)	28.2 (28)	19.1 (22)

Note: All the means are calculated for workers reporting $0 < \text{duration} \leq 120$. Unemployment duration is measured in months.

4.3. Year of Job Loss

Duration of unemployment by the years in which the jobs were lost is exhibited in the lower panel of Table 9. Due to the sampling scheme used, namely, each worker was asked to report information about the last spell of unemployment, the following brief discussion will clarify the relationship between calendar time and duration of unemployment in this sampling framework.

With respect to unemployed workers in the last quarter of 1985, it is evident that duration coincides with calendar time. The longer ago the worker lost his or her job, the longer is the ongoing unemployment spell. Since the survey places no limitation on the time span in which the last period of unemployment took place, some very long unemployment spells are reported. Those workers who lost their jobs before 1981, and still were unemployed at the end of 1985, reported to have been out of work, on average, for more than 70 months.

The relationship between calendar time and duration becomes less clear in the case of complete unemployment spells. A long complete spell is associated with an early starting date. The longest unemployment spells are reported to have taken place further back in time. Therefore, to accurately measure duration of unemployment through retrospective questions, no limitation on the date the spell started should be imposed. However, reporting spells of unemployment which took place long ago raises measurement errors because workers tend to forget short or less costly spells, and the exact duration of long spells.

5. Characteristics of New Jobs

The sectoral and occupational changes in employment among job losers illustrate the structural transformations affecting the nature of employment in Spain. As indicated earlier, 52% of four million total job losers in Spain had found work by the time survey interviews were held. Provided that sectors and occupations of both the old jobs and the new jobs are reported, we can examine by sectors and occupations the flow of re-employed workers from the prior jobs to the new ones. Our analysis consists of looking at the sectoral and occupational transition of job losers conditional on their being re-employed at survey date. However, the impossibility of doing this analysis for several points in time throughout the recession period limits the extent of our conclusions.

Table 10. Transition Matrix of Re-Employed Job Losers by Sectors

Previous Sector	Current sector											Total
	1	2	3	4	5	6	7	8	9	10	11	
1	66.26 47.36	0.00 0.00	0.70 3.86	0.11 0.23	7.01 5.60	6.97 5.41	6.38 5.11	1.64 4.35	0.37 1.06	7.95 5.01	2.60 4.95	100.00 11.35
2	12.72 1.47	29.06 36.56	3.64 3.24	5.79 1.98	3.81 0.49	5.11 0.64	7.55 0.97	9.00 3.84	4.29 1.97	15.01 1.52	4.03 1.24	100.00 1.83
3	10.39 1.18	4.82 5.99	17.78 15.68	12.18 4.13	3.37 0.43	15.84 1.96	14.34 1.83	2.08 0.88	2.90 1.32	15.66 1.57	0.63 0.19	100.00 1.81
4	6.69 3.22	1.17 6.16	2.35 8.75	41.01 58.63	12.97 6.97	6.45 3.37	8.04 4.33	2.82 5.03	4.08 7.81	13.40 5.68	1.01 1.30	100.00 7.64
5	8.33 9.66	0.42 5.34	0.91 8.16	4.66 16.06	40.09 51.94	4.53 5.71	10.29 13.36	3.86 16.60	3.11 14.38	16.45 16.83	7.34 22.63	100.00 18.42
6	16.21 21.68	1.24 18.14	2.72 28.14	1.93 7.68	6.25 9.34	48.61 70.62	5.23 7.83	2.51 12.45	1.64 8.74	9.16 10.81	4.48 15.94	100.00 21.24
7	6.33 6.15	0.88 9.31	1.23 9.21	2.00 5.77	12.95 14.06	4.49 4.74	47.74 51.94	4.66 16.80	4.25 16.43	10.98 9.41	4.50 11.62	100.00 15.43
8	10.07 2.19	0.62 1.46	0.71 1.20	0.67 0.43	10.40 2.52	6.82 1.61	8.52 2.07	44.71 36.00	3.35 2.90	10.36 1.98	3.78 2.18	100.00 3.45
9	2.81 0.71	0.00 0.00	0.63 1.24	1.85 1.39	8.59 2.44	6.31 1.74	14.35 4.07	1.52 1.43	37.19 37.58	20.48 4.58	6.26 4.22	100.00 4.03
10	5.23 3.83	1.76 14.05	2.04 11.56	1.31 2.84	6.20 5.07	3.28 2.61	8.52 6.98	0.96 2.61	2.62 7.64	63.37 40.91	4.71 9.17	100.00 11.63
11	12.69 2.54	1.36 2.98	5.78 8.97	1.44 0.86	5.13 1.15	7.32 1.59	6.69 1.50	0.00 0.00	0.22 0.18	9.56 1.69	49.81 26.56	100.00 3.18
Total	15.88 100.00	1.45 100.00	2.05 100.00	5.34 100.00	14.22 100.00	14.62 100.00	14.19 100.00	4.28 100.00	3.99 100.00	18.01 100.00	5.97 100.00	100.00

Key: 1. - Farm. 2. - Energy/Water/Gas. 3. - Non-Energy Mining/Chemical Industry. 4. - Engineering. 5. - Other Manufacturing Industries. 6. - Construction. 7. - Trade/Hotel/Repairs. 8. - Transportation/Communications. 9. - Finance/Insurance. 10. - Other Services. 11. - Unclassified.

Table 10 exhibits what we call a transition matrix by sectors. For an easier interpretation of the information it contains, let E_{ij} be the number of workers who lost their jobs in sector i (rows in the table) and re-employed in sector j (columns in the table). Consider D_i the number of job losers from sector i and re-employed elsewhere. Also consider R_j the total number of workers re-employed in sector j . The upper coefficient in each cell of Table 10 is E_{ij}/D_i , to be read as row percentages. The lower coefficient is E_{ij}/R_j , to be read as column percentages. When $i=j$, we obtain the former proportions for re-employed workers in the same sector. When we divide the upper coefficient by the lower one in each cell where $i=j$ (diagonal of Table 10), $(E_{ii}/D_i) / (E_{ii}/R_i)$, we obtain R_i/D_i which, if greater than 1, indicates that the sector in question has a net inflow of workers²⁰. The same analysis applies to occupations in Table 11.

Table 10 permits an analysis of workers' relocation among sectors. Four sectors have a net inflow of workers: other services, farming, mining/chemical industry and transportation/communications. Most workers reemployed in the farming sector had been employed in the construction sector (21.7%), other manufacturing industries (9.7%) or hotel and reparation sector (6.2%). These results suggest that many workers who lost their jobs in the non-farming sector were re-employed in farming. They are likely to have originally left rural areas during the late 60s and early 70s, in pursuit of the low-qualified jobs primarily made available by the construction sector. When the recession started by the mid 70s, these same workers were the most affected by job losses. They had no alternative apart from returning to their traditional work.

According to Table 11, there is a net inflow of workers to the following occupations: farm managers, non-farm managers/independent workers, professional/technical workers, rest of service workers and farm workers. Many of the workers who found jobs as farm managers were previously employed as unqualified laborers (30.4%), farm workers (27.3%) and qualified laborers (24.5%).

A great deal of workers currently employed as non-farm managers and independent workers were formerly holding jobs as qualified laborers (40.1%). Also, a considerable number of workers previously employed as service/clerical laborers and unqualified laborers became non-farm managers or independent workers²¹. This pattern of mobility seems to indicate important occupational changes among job losers in Spain. We cannot separate the effects of a depressed labor market from what might be a persistent tendency toward the proliferation of self-employment.

Table 11. Transition Matrix of Re-Employed Job Losers by Occupations

Previous Occupation	Current Occupation									
	1	2	3	4	5	6	7	8	9	Total
1	18.32 3.59	10.07 0.47	0.00 0.00	18.69 2.62	17.74 0.81	10.58 0.24	0.00 0.00	13.81 0.82	10.79 0.54	100.00 0.54
2	7.84 27.31	61.96 51.56	3.43 4.63	0.37 0.92	0.89 0.72	6.01 2.39	9.77 5.18	4.13 4.34	5.60 4.97	100.00 9.66
3	5.58 3.25	2.97 0.41	42.27 9.55	0.00 0.00	8.36 1.13	28.87 1.92	3.06 0.27	2.63 0.46	6.27 0.93	100.00 1.62
4	2.48 2.41	2.48 0.58	10.22 3.85	64.69 44.83	9.86 2.23	2.50 0.28	2.15 0.32	1.08 0.32	4.52 1.12	100.00 2.70
5	0.60 3.09	1.37 1.70	8.24 16.58	6.65 24.62	53.78 64.87	10.91 6.45	6.51 5.14	5.57 8.72	6.37 8.42	100.00 14.39
6	2.28 24.53	5.29 13.62	9.60 40.14	1.11 8.51	3.42 8.58	52.98 65.10	11.93 19.56	5.44 17.69	7.96 21.89	100.00 29.90
7	3.12 30.39	12.08 28.12	4.30 16.26	1.35 9.35	6.24 14.13	17.03 18.92	41.34 61.28	5.50 16.17	9.03 22.42	100.00 27.02
8	1.14 3.03	3.91 2.50	4.53 4.69	1.56 2.98	7.90 4.90	7.62 2.32	10.30 4.18	54.15 43.63	8.89 6.05	100.00 7.41
9	0.98 2.40	1.78 1.03	4.54 4.29	3.56 6.18	4.63 2.62	8.60 2.39	11.00 4.07	10.70 7.86	54.21 33.65	100.000 6.75
Total	2.77 100.00	11.61 100.00	7.15 100.00	3.89 100.00	11.93 100.00	24.33 100.00	18.23 100.00	9.19 100.00	10.88 100.00	100.00 100.00

Key: 1. - Farm Managers. 2. - Farm Workers. 3. - Non-Farm Managers/Independent Workers. 4. - Professional/Technical Workers. 5. - Service/Clerical Laborers. 6. - Qualified Laborers. 7. - Unqualified Laborers. 8. - Rest Service Workers. 9. - Unclassified.

6. Conclusion

Four principles can be posed in shaping a comprehensive public policy to assist workers who permanently lost their jobs. First, the number of job losers grow with economic fluctuations, technological change and international competitiveness. Second, the costs derived from lengthy du-

ration of unemployment after job loss stem from waning of specific skills and eventual deterioration of human capital. Third, when job losers must regain employment in a depressed economy, their hardship increases as they are compelled to adapt to a new and adverse economic environment. Finally, the longer workers are unemployed after job loss, the lower are their acceptance wages and the worse are their working conditions when re-employed²². Under the latter circumstances, job losers become one of the most disadvantaged collectives in the labor market.

Spain represents a unique case for understanding the labor market outcomes in the context of massive joblessness. Despite the profound adjustment of the late 1970's and early 1980's, the Spanish economy must accommodate to a more competitive setting. The completion of the European Single Market will most probably cause plant closures and labor force adjustments in many firms. The looming waves of job losses should trigger effective mechanisms to prevent devastating consequences for workers. This investigation is a modest contribution to learning from past experience.

Our findings call for more research on job losses in Spain²³. A better understanding of Spanish workers' disadvantages in an uncertain labor market is necessary in order to more efficiently provide them with assistance for regaining employment. We remark the necessity for a thorough analysis of the characteristics of workers at risk. Furthermore, existent income maintenance and retraining programs might be evaluated so as to foster proper implementation of new forms of public policies designed to ameliorate the burden of job losses²⁴.

Notes

¹ See Fina (1988) for an analysis of the contributing factors for job losses in the midst of structural change in Spain.

² The term "displacement" could be applied to these workers in order to indicate that they have permanently lost their jobs for involuntary reasons. However, it is not totally clear that fundamental structural change is the underlying cause for all the job losses.

³ All experienced workers who had changed firms responded to the question on reason for leaving the previous job. The other reasons are the following: quitting, retirement, marriage, birth, military service, and others not specified.

⁴ The criteria used to classify the population into employed, unemployed, or out of the labor force are the following: A worker is considered employed if he or she worked during the last week prior to survey date, did not work during the last week because of, e.g., illness, strike, etc., or did not work during the last week but worked during the last three months for more than 13 hours per week. A worker is considered unemployed

if he or she is not currently employed and looked for work during the last week prior to survey date. People are also considered unemployed when they did not look for work during the last week but classified themselves as "unemployed looking for work". Persons not included in any of the former groups are considered out of the labor force.

⁵ A large longitudinal data set would provide better information to assess the nature and magnitude of job losses.

⁶ We are assessing the incidence of job losses among unemployed workers. Therefore, we do not account for job losers out of the labor force. Since the probability of leaving the labor force varies with gender, age and education, we cannot extend the results of this analysis to the entire working-age population.

⁷ Note that vocational education appears to be an exception to this pattern. We will turn to this point later in this work.

⁸ Upon our consideration of male workers aged 25-54, we were unable to show a clearer relationship between education and job loss probability for unemployed workers.

⁹ It is possible to consider a subset of re-employed workers as marginal workers. They are those who worked during the last week prior to survey date, but for less than 13 hours. Marginal workers are also those who did not work during the last week but who did some work over the three months prior to survey date for more than 13 hours per week. According to this definition, the proportion of marginal employment is approximately 7.5% and turns out to be similar for both males and females.

¹⁰ This age group of the female labor force has proved to be the most active.

¹¹ This consists of three years of education after finishing secondary school. It can be considered three years of higher education, which in some cases can be credited toward completion of a full university degree.

¹² Many of these short-tenured workers were re-employed in marginal jobs; one-third of re-employed workers with 6 months or less of tenure in the previous job can be considered marginal employees. This result suggests the existence of a sizeable dual labor market in Spain.

¹³ Severance pay amount, which is calculated according to the duration of the terminated job, can also affect workers' decision to retire.

¹⁴ For those already employed, the year of job loss is calculated by adding the duration of the current job to the duration of unemployment. When one of these variables is missing, so is the variable for the year of job loss.

¹⁵ By the end of 1984, ample legislation providing for temporary contracts was enacted under the Employment Promotion Programs in Spain.

¹⁶ See Salant (1977) for a discussion on problems analyzing the duration of unemployment when only spells in progress are available.

¹⁷ Approximately 18.5% of job losers did not report duration, primarily because nearly 65% of them were out of the labor force when interviewed. Workers reporting unemployment spells of more than 120 months were excluded to reduce the measurement error.

¹⁸ When the criteria to classify the labor force are applied, some workers who responded to the question on duration appear to be out of the labor force. This happens despite the explicit emphasis placed on active job searching in the duration question. As has been noted, many workers have been out of work for several years. Given that the 1985 unemployment rate in Spain was about 22%, it is not surprising that some of the workers who suffered long duration of unemployment, particularly women, decreased the intensity of their job search over time.

¹⁹ Recall that the percentage of labor force dropouts is very high among these workers.

²⁰ Note that D_i is the number of workers who lost their jobs in sector i and were re-employed elsewhere. This calculation of the net flow is more informative than considering D_i as the total number of job losers from sector i . Using the latter method does not change the main conclusions.

²¹ Unqualified and qualified laborers have such a significant weight in these growing occupations due, in part, to their overall importance among job losers.

²² Alba and Freeman (1990) find that duration of unemployment negatively affects acceptance wages and types of jobs found in Spain.

²³ Yemin (1982), McKersie and Sengenberger (1983), Flaim and Sehgal (1985) and OECD (1990) analyze job losses and related issues in different countries.

²⁴ See U.S. Congress (1986) and Hollenbeck et al. (1984) for some of these initiatives in the United States.

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