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# Agglomeration Externalities and Workforce Management: Rural Firms versus Urban Firms

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# Agglomeration externalities and workforce management : rural firms versus urban firms<sup>1</sup>

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## 1. Introduction

Agglomeration externalities affect the way labour markets work. Their effects on salaries have been incorporated into various economic geography models, all of which point to labour market size having a positive impact on salary levels. Starting from the premise that diversity of qualifications and specialisations is an increasing function of size, several explanations have been put forward for this phenomenon. Thisse & Zénou [1995] have highlighted the fact that the larger the market the more intense the competition among firms, because companies are then faced with more competitors seeking the same specialisations, which pushes salaries higher. Abdel-Rhman & Fujita [1990] have developed a different argument: firms have production functions which provide increasing returns in the number of specialisations used. Under such conditions, the larger the market the higher the productivity and that has an effect on salary levels.

We propose to study another aspect of the effect of agglomeration externalities, namely their impact on workforce management methods and, more particularly, on fluctuating recruitment and quit rates. The underlying idea here is that the larger the labour market the more active it is. This idea was developed by Jayet [1985, 1988] who, from an analysis of monthly flows into and out of unemployment registered by ANPE (National Agency for Employment), demonstrates that in rural areas people are unemployed less often but for longer periods than in urban areas. He puts forward two explanations for this fact: firstly, the under-representation of tertiary activities which are those where employee turnover is highest, and, secondly, the fact that in rural areas people make less use of the services of ANPE. Clearly there are exceptions to this generalisation. In the Pas-de-Calais area for example, Lhéritier [1985] observed that there were areas of tertiary rural employment arising from major tourist activity and highly industrialised urban employment areas. Industrial areas can experience sharp rises in the numbers of people becoming unemployed when they are based on sectors in crisis. The emphasis placed on sector-based composition of areas remains the essential element in explaining this phenomenon. Blanc et al [1999] demonstrated that medium-term job stability was on average not noticeably greater in predominantly rural than in predominantly urban areas. But this average arises from a different impact of the effect of size in these two types of area: jobs are less stable in small companies everywhere, and these are over-represented in rural areas. But, for any firm size group, jobs are more stable in rural areas and in particular in small companies. That, however, affects only local employees. Summarised in Table 1, these results were interpreted, with the work of Doeringer [1984] providing inspiration, as the expression of paternalistic working relationships in small rural companies and of a more developed internal market in large companies. However, the statistical source used

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<sup>#</sup> INRA ESR ETIC, Toulouse ( INRA = Institut National de la Recherche Agronomique. ESR = Economie et Sociologie Rurales. ETIC = Emploi, Territoire, Innovation, Compétence)

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[1993 FQP survey] did not enable direct observation of the behaviour of companies, but enabled only inference thereof from its effects on the professional career paths of individuals. The work presented here fills this gap by using data relating to companies.

*Table 1. Job stability [percentage of employees still working in 1993 in the same company as they were working in in 1988]*

Place of work and geographical origin		Company size			Total number of employees
		1 à 49 employees	50 employees and over	TOTAL	
Predominantly urban areas	Paris area	53.9	78.1	70.9	3 380 900
	Other urban areas [of local origin] [of non-local origin]	66.4	82.1	77.3	8 288 800
		66.5	83.7	78.3	4 291 800
	66.4	80.3	76.2	3 997 000	
TOTAL		62.9	80.9	75.4	11 669 700
Predominantly rural areas	Urban units	64.9	84.9	76.7	1 066 400
	Rural communes	71.7	83.9	77.2	997 800
	TOTAL [of local origin] [of non-local origin]	68.7	84.5	76.9	2 064 300
		76.0	85.7	80.6	1 192 000
62.3	83.7	74.3	872 300		

*Source : FQP 93*

*Field : members of the working population in employment in 1988 and in 1993*

## 2. Our hypotheses

We are continuing the idea developed in economic geography models according to which the diversity of specialisations and qualifications is an increasing function of the size of local labour markets. As a result, the matching between job supply and demand should be less immediate in rural areas than in urban centres. The widest average gap between job profile and employee characteristics should translate into greater difficulties experienced by rural firms in recruiting the staff they need. Following Thisse & Zénou [1995], we make the assumption that training costs to close this gap are at least in part carried by employers. Therefore recruitment should be more expensive for rural firms and they should tend to keep their staff as long as possible to recoup what they have invested in training. Furthermore the gulf between companies in terms of specialisation would make

the skills acquired by training less transferable locally from one firm to another. Rural employers would therefore be less exposed than their urban counterparts to the risks of resignation of trained staff, which would be likely to encourage them to invest more in training.

Of course such hypotheses are less relevant when dealing with very specialised rural productive systems, because in such cases the demand for work in large part structures supply, due to the fact that local professional training centres adapt to suit the sector-based specialisation of the area and skills acquired on the job are easily transferable from one company to another. Specialisation of the local productive system then allows agglomeration economies to develop despite the relative narrowness of the labour market. Highly specialised rural areas are, however, rare in France and the Midi-Pyrénées region.

To test our hypotheses, it is appropriate to monitor the behaviour of companies according to size and sector since we have noted that these variables also affect job stability. We therefore expect to find that in the case of companies of identical size and sector, those in rural areas differ from those in urban areas in that:

- they recruit and lose employees to a lesser extent,
- they have more difficulty recruiting,
- they invest more frequently in training.

After presenting the data used, we shall examine the evidence relating to these three predictions.

### **3. Data used**

The regional Chamber of Commerce and Industry was interested in the behaviour of Midi-Pyrénées companies in terms of recruitment, training and the organisation of work, and so it decided to launch a series of surveys on the matter. We have been given access to the complete file relating to the fourth interrogation of this regional panel of production units<sup>2</sup>. As soon as we were able to satisfy certain methodological criteria, this survey provided us with invaluable information<sup>3</sup>. In particular, over and above size, sector and the precise location of the company, it indicated the recorded number of employees recruited and those who had left throughout the year, the reasons for leaving, the number of people who had undergone training and the presence of recruitment difficulties, where these arose, and their causes. This data base, compiled in 1998, relates to a total of 1360 production units [about 1.7% of the production units in the region] and involves 33,220 individuals [about 5% of regional employment]. This group splits into urban areas according to the different zones defined by *INSEE [Institut National de la Statistique et des Etudes Economiques* = French national institute of statistics and information about the economy] as indicated in Table 2 below:

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<sup>2</sup> A company can have several production units, but in most cases they have only one.

<sup>3</sup> For an analysis of information obtained, see: *CRCI [2000] – Emploi et compétences, pratiques et besoins des entreprises de Midi-Pyrénées*, [Jobs and skills, practices and needs of Midi-Pyrénées companies], May

Table 2. Survey field

	Number of production units	Number of employees
Urban centres	913 (67,1%)	25012 (75,3%)
Monopolar or multipolar commuting areas	67 (4,9%)	1142 (3,4%)
Predominantly rural	380 (28,0%)	7066 (21,3%)
Total	1360	33220

Over and above these “permanent” employees [on fixed-term or permanent contracts], mention must be made of temporary employees amounting to about 10%, based proportionately more in urban areas but with only a slight discrepancy: thus 18.9% of temporary employees are counted as being in the rural area, remembering that rural employment accounts for 21.3% of total employment.

In order to have a clear understanding of the effects of externality, we used only the two most markedly contrasting spatial categories from this point of view, namely urban centres on the one hand and predominantly rural areas on the other. Production units in commuting areas featured little in the data base, and so their omission lost us very little information.

#### 4. Employee turnover

Two major facts appear when we compare the level of employee turnover in rural areas with that in urban centres [Cf. Table 3 below]:

- the urban labour market is more active: more people are recruited and leave;
- more people leave jobs in the town due to contracts ending: when fixed-term contracts are excluded, rates are comparable.

The number of employees recruited per production unit is considerably lower in rural areas. That has to be seen in relation to the lower rate of employees leaving. production units recording no employees leaving and no new recruits are proportionately more numerous in rural areas than in urban centres: 58.1% as against 60% for those with less than 10 employees, 38.8% as against 23.2% for those with 10 to 20 employees, and 15.1% as against 11% for those employing more than 20 people.

Table 3. Labour force turnover

	Urban areas	Rural areas
Production unit employees in 1998	25012	7066
Annual rate of employees leaving	7,9%	6,5%
of which end of contract	3,5%	1,8%
net of end of contract	4,4%	4,7%
Annual rate of employees recruited	12,4%	9,8%
Estimated rate net of fixed-term contracts <sup>4</sup>	8,9%	8,0%
of which executives		
of which technicians and supervisors	1,1%	0,3%
of which employees	1,7%	0,5%
of which manual workers	6,1%	4,2%
	3,6%	4,8%
No. of employees recruited/production unit	2,4	0,6
No. of employees leaving/ production unit	1,5	0,4
Recruitment difficulties	314 co. /746 <sup>5</sup> namely 42.1%	90 co. /215 namely 1.9%
Proportion of employees working in production unit of less than 10 employees	7,1%	11,8%
in production unit of more than 20 employees	80,9%	74,3%
Proportion of production unit of less than 10 employees	50,1%	55,8%
of more than 20 employees	26,9%	19,2%

It is advisable to check that the differences noticed between rural and urban areas as to the level of employee turnover are not merely a simple effect of the distribution of production units according to size or activity sector. Tertiary sectors recording a higher turnover are in fact under-represented in rural areas in the Midi-Pyrénées. Likewise, there are more small businesses in country areas than in the town: 55.8% as against 50.1%. They involve a larger portion of the workforce: 11.8% as against 7.1%.

#### 4.1 The effect of production unit size

We observe [CF. Table 4] that whatever the size of the production unit, recruitment and quit rates are lower in rural areas.

<sup>4</sup> While we have information on ends of contract for employees leaving, there is no distinction as to whether newly hired employees are on fixed-term or permanent contracts. The estimate suggested here rests on the assumption that globally at the level of the two spatial categories distinguished, the number of employees hired on fixed-term contracts balance out the ends of contract. What interests us here is not so much the estimated rate of employees hired net of fixed-term contracts as the difference between these rates according to the two types of location. It would seem reasonable to think that this difference is of a similar size for employees hired as for ends of contract.

<sup>5</sup> Recruitment difficulties were experienced only by companies which had offered jobs.

Table 4. Recruitment and quit rates in 98 according to area and size

	Recruits in 98		Employees leaving in 98		Employee numbers in 98	
	Employees	%	Employees	%	Total	
Urban, size <10	204	11,5	210	11,9	1769	
Rural, size <10	74	8,9	79	9,5	834	
Urban, size 10 - 20	425	14,1	387	12,8	3019	
Rural, size 10 - 20	94	9,6	93	9,5	979	
Urban, size >20	2474	12,2	1378	6,8	20224	
Rural, size >20	528	10,1	289	5,5	5253	
Total						
	Urban	3103	12,4	1975	7,9	25012
	Rural	696	9,8	461	6,5	7066
Together		3799	11,8	2436	7,6	32078

Furthermore, while these rates increase with the size of production unit in rural areas, in urban centres they register maximum level in the intermediate-sized group [production units with 10 – 20 employees]. Such urban production units therefore seem particularly active in the labour market. Differences in recruitment and quit rates diminish in production units with more than 20 employees. This suggests that beyond a certain size, location ceases to have an effect on company behaviour.

The breakdown of employee quit rates according to reasons for leaving [Cf. Table 5] strengthens this idea. If we calculate the sum of the absolute values of the gaps between urban and rural areas in the various reasons for leaving, the maximum [6.1] is reached in the 10-20 employees group and the minimum [2.8] in production units with more than 20 employees.

Table 5. Breakdown of quit rates according to reasons for leaving

	Redundancy	Resignation	End of contract	Other reasons	Total
Rural <10	3.4	4.0	2.0	0.1	9.5
Urban <10	2.3	4.0	5.0	0.5	11.9
Rural 10-20	4.5	2.9	1.7	0.4	9.5
Urban 10-20	3.1	4.5	4.6	0.6	12.8
Rural >20	1.6	1.8	1.8	0.4	5.5
Urban >20	0.8	2.2	3.2	0.6	6.8
Total Rural	2.2	2.2	1.8	0.4	6.5
Total Urban	1.2	2.6	3.5	0.6	7.9

On the other hand, while the quit frequency attributable to contracts ending is practically independent of size in rural areas, in urban areas it is markedly less so in “large” companies. Finally, rural businesses seem on average slightly less exposed to the risk of resignation by their employees than their urban counterparts, but this gap is noticeable only in the case of companies with 10 to 20 employees.

#### 4.2. Sector-based effect

In the majority of sectors, recruitment and quit rates are lower in rural than in urban areas [Cf. table 6]. In the few cases where this does not hold true, the gaps between the two types of area are very small.



Table 6. Recruitment and quit rates in 98 according to area and sector

	Recruits in 98				Employees leaving in 98				Employees in 97	
	Urban		Rural		Urban		Rural		Urban	Rural
	Employees	%	Employees	%	Employees	%	Employees	%	Employees	Employees
Agriculture et food-processing	301	16,1%	46	5,5%	319	17,0%	42	5,0%	1857	843
Other industries	660	11,7%	334	12,0%	237	4,2%	171	6,1%	6055	2956
Construction industry	379	13,5%	59	8,3%	180	6,4%	37	5,2%	3000	730
Wholesale trade	224	8,0%	39	5,0%	165	5,9%	43	5,5%	2880	782
Retail trade	436	14,5%	75	13,7%	377	12,5%	72	13,1%	3063	551
Hotels, Restaurants	196	24,8%	16	10,6%	208	26,3%	22	14,6%	778	145
Other services	907	13,5%	127	12,6%	489	7,3%	74	7,4%	7379	1059
Total	3103	13,1%	696	10,2%	1975	8,4%	461	6,7%	25012	7066

The food-processing sector is characterised by a very marked contrast between urban centres and rural areas: recruitment and quit fluctuations are major in the first case and minor in the second. In the hotel and catering sector, recruitment and quit rates are also much higher in urban areas than in rural areas, without being particularly low in the latter case. This result is somewhat surprising to the extent that we would have expected a more pronounced turnover in country areas where activity in this sector is more seasonal than in the towns. Perhaps urban production units experience more difficulties retaining employees long-term in sectors where working conditions are difficult since workers have more opportunities to find other jobs than in rural areas. That could also explain the phenomenon observed in the food-processing industry.

The relatively minor recruitment and quit fluctuations in rural areas do not arise from the sector-based structure of jobs appropriate to this type of area. If sector-based job distribution there was actually identical to that observed in urban areas, the recruitment rate in rural areas would increase a little to reach 10.6% but would remain considerably less than that in urban areas. The quit rate would even diminish slightly since it would settle at 7.3%.

### 4.3 Econometric modelling of recruitment and quit rates

#### 4.3.1 The econometric model

The preceding analysis shows that recruitment and quit rates depend on size and sector, and furthermore, these are linked. To measure the impact of agglomeration on these rates, the effect of these different variables would have to be able to be checked. But at individual production unit level, the recruitment rate is not particularly meaningful. For a production unit with 5 employees, recruiting one employee cannot be considered the same as recruiting 20 in a production unit with 100 employees, even although in the two cases the recruitment rate is 20%. We have therefore decided to model not the rates, but the numbers of employees recruited and leaving. Obviously in this case, the number of employees of a production unit constitute a determining exogenous variable.

The discrete nature of the variable to be explained leads us to reject traditional regression models as being inappropriate for this type of event<sup>6</sup>. Counting models such as Poisson<sup>7</sup> regressions are often used to explain the number of occurrences of an event during a given time period and therefore take into account the particular nature of the distribution of the events observed. However, one of the limitations of Poisson models is to assume that the first moments in the distribution of the events observed are equal [i.e. average = variance]. In our case, the variables we are interested in present a wide dispersion [Cf. Table 7] which moves us away from Poisson model hypotheses<sup>8</sup>. We shall adopt alternative modelling, so-called *negative binomial regression*, which allows us to take into account the over-dispersion in our observations [Cf. Methodological box].

Table 7. Distribution of numbers of employees recruited and leaving

	Average	Variance
Total number of recruits in 1998	2.98	139.62
Total number of employees leaving in 1998	1.92	48.78

#### Methodological box

A negative binomial distribution is a mixture of the Gamma distribution and the Poisson distribution. Thus, the occurrence of an event  $k_i$  (number of employees recruited in or leaving a production unit  $i$  ( $k_i = 0, 1, 2, \dots, n$ ) within a given time period), is said to follow a Poisson distribution of parameter  $\lambda_i = \mu_i v_i$ , where  $\mu_i = \exp(X_i \beta)$ ,  $X_i$  are the variables in the explanation of the event under consideration and  $v_i (= \exp(u_i))$  follows a Gamma distribution  $(1/\alpha, 1/\alpha)$  of average 1 and variance  $\alpha$ , with  $\alpha$  as over-dispersion parameter. Thus, depending on  $v_i$  the distribution of events observed is written as:

$$f(y_i | v_i) = \frac{(\mu_i v_i)^{y_i} e^{-\mu_i v_i}}{\Gamma(y_i + 1)}$$

with  $\Gamma$  function as for all integer  $p$   $\Gamma(p) = (p-1)!$ . The negative binomial regression therefore boils down to a Poisson regression with  $\lambda_i = e^{X_i \beta} \cdot e^{u_i}$  as a parameter. These two distributions have the same average  $\mu_i = e^{X_i \beta}$ , but the negative binomial distribution takes account of the wide dispersion observed in the distribution since its variance is equal to  $\mu_i \alpha$ .

The coefficients estimated throughout the regression measure the impact of the corresponding variable on the expected logarithm of recruitment (or leaving). More precisely, these coefficients measure the relative variation of the expectancy of the number of employees recruited (or leaving) which results in a variation of one unit from the explicative (or of a progression from 0 to 1 for a dichotomous explicative).

The exogenous variables we used are:

- location,

<sup>6</sup> In fact, the distribution of the number of recruits or of employees leaving in the year assume discrete values and decrease rapidly. Furthermore, the number of zeros is particularly high.

<sup>7</sup> See Coleman [1964] or even Feller [1968]

<sup>8</sup> We came to the same conclusions by testing the relevance of Poisson modelling with the aid of a Pearson statistic.

- sector,
- number of employees leaving [or recruited] for modelling the number of employees recruited [or leaving],
- size, which was introduced in a non-linear way to take account of the concavity of the effect.

This last variable was crossed with location to test whether its effect was dependent on location.

#### **4.3.2 Results**

We observed a significant and very depressive effect of location in rural areas on the number of employees recruited and leaving when size and sector-based effects are controlled [Cf. Tables 8 and 9]. The results of the descriptive statistics presented above are therefore confirmed in this respect.

Moreover, the effect of size on employees leaving is much more marked in rural than in urban areas: the coefficient of the variable “size x rural” is almost three times greater than that of the variable “size x urban”. The difference is clearly significant since the confidence intervals of 95% of these two coefficients are completely disjoint. The more size increases, the more the difference between rural and urban in relation to the number of employees leaving becomes blurred. Jobs are more stable in small rural businesses than in their urban counterparts. In large production units location does not affect job stability. The results obtained by Blanc et al [1999] therefore remain valid even when local sector-based structures are checked. Lesser job stability in small urban production units may result either from a type of workforce management which makes greater use of less secure forms of employment [such as fixed-term contracts, for example], or from a greater tendency among their staff to resign to take up a job elsewhere. Were the phenomenon mainly due to the first of these reasons, we ought to find in the recruitment model the same effect differentiated by size according to location. Although in the regression of the number of employees recruited the coefficient of the variable “size x rural” is actually slightly higher than that of the variable “size x urban”, the difference is not statistically significant. That therefore suggests that the lesser stability of jobs in small urban production units is at least as much due to the behaviour of employees as that of employers. In other words, a job in a small production unit in an urban area would more often be an entry into the job market or a transitional job taken in the expectation of finding something better [less laborious, better career prospects, higher pay, etc.]. This bears out the reasoning developed by Jayet[1988] , and that of Allaire & Tahar [1996] and Detang-Dessendre & Perrier-Cornet [1996]. Such behaviour among urban workers would furthermore be facilitated by the fact that the average recruitment rate [number of recruits in relation to the number of people employed] is higher in the town than in the country.

Table 8. Recruitment model

Recruitment in 1998		Coefficients	Std. Err.	z	P>z	[Confidence interval 95%]	
Constant		-0,258	0,140	-1,850	0,065	-0,532	0,016
Urban		reference					
Rural		-0,515	0,150	-3,440	0,001	-0,808	-0,222
Employees 98 *		0,019	0,002	8,430	0,000	0,015	0,024
Urban							
Employees 98 *		0,025	0,005	5,280	0,000	0,016	0,035
Rural							
(Employees 98)^2 *		0,000	0,000	-7,170	0,000	0,000	0,000
Urban							
(Employees 98)^2 *		0,000	0,000	-3,270	0,001	0,000	0,000
Rural							
Agriculture and food processing		-0,003	0,229	-0,020	0,988	-0,453	0,446
Other industries		0,311	0,178	1,750	0,080	-0,038	0,659
Construction industry		0,295	0,194	1,520	0,129	-0,086	0,675
Retail trade		-0,412	0,173	-2,380	0,017	-0,752	-0,073
Wholesale trade		reference					
Hotels Restaurants		0,062	0,215	0,290	0,771	-0,359	0,484
Other services		0,259	0,161	1,600	0,109	-0,058	0,575
No. of employees leaving in 98		0,101	0,011	8,980	0,000	0,079	0,123
alpha		2,121	0,142			1,861	2,418
Test alpha=0				Chi2 = 4448,69		Prob>=Chi2	0,0000

Somewhat surprisingly, most of the sector-based effects are not significant. All we note is a positive effect on employees leaving from the hotel and catering sector, which was expected, and a negative effect on recruitment from the retail trade sector, which was completely unexpected [Cf. Table 6]. On the other hand, we expected a positive impact on recruitment from the hotel and catering industry, which was not the case. It is possible that some of these sector-based effects have been captured by the variables of size and number of employees leaving [or recruited]. That could explain the negative impact of the retail trade [it is a sector essentially made up of very small businesses] and the absence of any positive effect of the hotel and catering industry on recruitment [the numbers of employees leaving are very high].

Finally, it is worth noting that in the two regressions the coefficient  $\alpha$  is very significantly different from zero. That confirms that modelling using a simple Poisson distribution would have been inappropriate.

Table 9. Model of the number of employees leaving

Employees leaving in 1998		Coefficients	Std. Err.	z	P>z	[Confidence interval 95%]	
Constant		-0,581	0,140	-4,150	0,000	-0,855	-0,306
Urban		reference					
Rural		-0,583	0,146	-3,990	0,000	-0,869	-0,297
Employees 98 * Urban		0,015	0,002	7,000	0,000	0,011	0,019
Employees 98 * Rural		0,040	0,005	8,180	0,000	0,031	0,050
(Employees 98)^2 * Urban		0,000	0,000	-7,340	0,000	0,000	0,000
(Employees 98)^2 * Rural		0,000	0,000	-7,640	0,000	0,000	0,000
Agriculture and food processing		0,114	0,222	0,510	0,609	-0,322	0,549
Other industries		0,108	0,176	0,620	0,538	-0,236	0,453
Construction industry		0,349	0,187	1,870	0,061	-0,017	0,715
Retail trade		-0,159	0,170	-0,930	0,351	-0,492	0,175
Wholesale trade		Reference					
Hotels Restaurants		0,697	0,199	3,500	0,000	0,307	1,087
Other services		0,182	0,160	1,140	0,255	-0,131	0,494
No. of employees recruited in 98		0,068	0,007	9,540	0,000	0,054	0,082
Alpha		1,691	0,125			1,463	1,955
Test alpha=0				Chi2 = 2641.95		Prob>=Chi2	0,0000

## 5. Recruitment difficulties

Our hypothesis, according to which, all other things being equal, rural production units recruit less and record fewer employees leaving than their urban counterparts, is certainly confirmed. It remains to find out whether that occurs for the reasons we put forward. We assumed that it was due to a wider gap between the characteristics of employees and the requirements of jobs. One could assume that if our hypothesis is correct that should translate into greater recruitment difficulties. For each recruitment profile completed in 1999 or planned, employers were asked to indicate whether they had experienced difficulties in recruiting staff and if yes, to indicate which from a list of reasons given in the questionnaire. Employers responses are summarised in Table 10.

We note that overall rural employers do not experience more difficulties in recruiting than urban employers. Nevertheless this statement conceals disparities according to qualifications. In country areas recruiting executives is more difficult than in towns and recruiting manual workers is easier. Even although the executive job market is not a local market, but a national or at least a regional one, rural production units have access to only a limited fraction of the supply, namely those executives who are prepared to move to country areas. Moreover, the lesser attractiveness of the area is one reason for recruitment difficulties which rural employers cite more often than urban ones. By limiting the number of offers that rural employers can access, variety is also reduced. Hence perhaps, the greater difficulty in matching staff to job requirements at this level. Nevertheless, we have no choice but to recognise that the lesser difficulty in recruiting manual workers in rural areas, even though in this category the labour market is smaller

since it is local, is not in line with our hypothesis. The same is true for the observation that lack of suitable qualifications is not a recruitment difficulty more frequently experienced in country areas than in towns.

Table 10. Recruitment difficulties

		Urban		Rural	
		%	Total	%	Total
<b>Difficulties according to job category</b>					
	Executives	33,8	71 <sup>1</sup>	52,6	19
	Employees	37,2	392	41	105
	Technicians and supervisors	44,7	114	40,9	22
	Manual workers	55	169	40,6	69
	<b>Total</b>	42,1	746	41,9	215
<b>Reasons for these difficulties</b>					
	Lack of suitable qualifications on the market	45,5	143	45,6	41
	Insufficiently flourishing sector	23,9	75	15,6	14
	Lack of motivation among candidates	22,6	71	27,8	25
	Insufficiently attractive area	3,2	10	7,8	7
	Lack of experience	2,9	9	1,1	1
	Lack of time or skills for recruitment	0,6	2	0,0	0
	Problems relating to salary	1,3	4	2,2	2
	<b>Total</b>		314 <sup>2</sup>		90

**Notes :**

- 1- Among the 71 companies located in urban areas who kept a profile on executive recruitment for 1999-2000, 33.8% experienced difficulties with recruitment.
- 2- Among the 746 companies located in urban areas who kept a profile on recruitment for 1999-2000, 314 responded on the nature of the difficulties experienced during recruitment.

We can, nevertheless, question the relevance of recruitment difficulties, including when they are expressed in terms of lack of suitable qualifications, as a criterion relating to the recruitment gap between worker and job. We can actually assume that a relatively wide gap ceases to be seen as a difficulty in areas where it is common. In other words, rural employers could consider it normal to recruit people who are not immediately suited to the post to be filled.

The lack of attractiveness of the sector concerned appears as a more frequent reason for recruitment difficulties in towns than in country areas. That may indicate that inter-sector differences as to the “quality” of jobs are more marked in urban than in rural areas and/or that it is more difficult there to find employees who both accept such jobs and meet the requirements of employers.

## 6. Company investment in training

We assumed the hypothesis that rural employers had to face up to higher adaptation costs in order to close the gap separating employee characteristics at the time of recruitment from those of the post to be filled. Analysis of recruitment difficulties did not enable us to highlight this wider gap. This would scarcely be a problem, had we managed to identify the extra costs of adaptation. The survey provided some indications of the costs of training undertaken by companies. So we are able to establish the proportion of production units which completed training programmes [Cf. Table 11 below].

Table 11. Training activity in production units

		Proportion of production units which completed training programmes
		%
Urban, size<10		30,7
Rural, size<10		36,7
Urban, size 10-20		74,1
Rural, size10-20		68,7
Urban, size>20		91,0
Rural, size>20		82,2
Total	Urban	57,0
	Rural	52,3
Overall		55,3

Size above all has a bearing on the frequency with which training is undertaken. That suggests that the internal market is more developed in large companies than in small. But overall there is no noticeably marked difference between rural and urban production units, even although it seems that very small rural production units invest more in training than their urban counterparts.

The training recorded in this survey related to courses or training sessions financed by the company. It does not include anything relating to experience acquired on the job. And yet this is probably the main way in which the workforce adapts to the demands of the job. Here again, the indicator available to us is undoubtedly of little relevance in terms of understanding the phenomenon we are seeking to highlight.

## 7. Conclusion

We have demonstrated that rural production units recruited less often and reported fewer employees leaving than their urban counterparts. We have also highlighted that this phenomenon does not relate to sector-based structural differences, that it is even more marked for small companies than for large, that it results in part from a higher frequency of fixed-term contracts and probably also of resignations in companies in urban areas.

On the other hand, we did not succeed in establishing that less employment flexibility in rural areas was due to a wider gap between employee characteristics at the time of recruitment and those of the post to be filled. This however, raises an important question, because the judgement on the ability of rural companies to react to the strong short-term variations in demand with which they are confronted actually depends on the answer to it.. The indicators of this gap and the resultant costs which we observed proved to be somewhat less relevant. We have to think about the way in which the questionnaire could be modified in future, such that we could gather more precise information on these matters. Working from a regional survey certainly imposes some constraints, but on the other hand, it allows us to intervene in the data collection procedure.

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