
ARTICLES

Literacy and Industrialization: the Case of the Département du Nord in France

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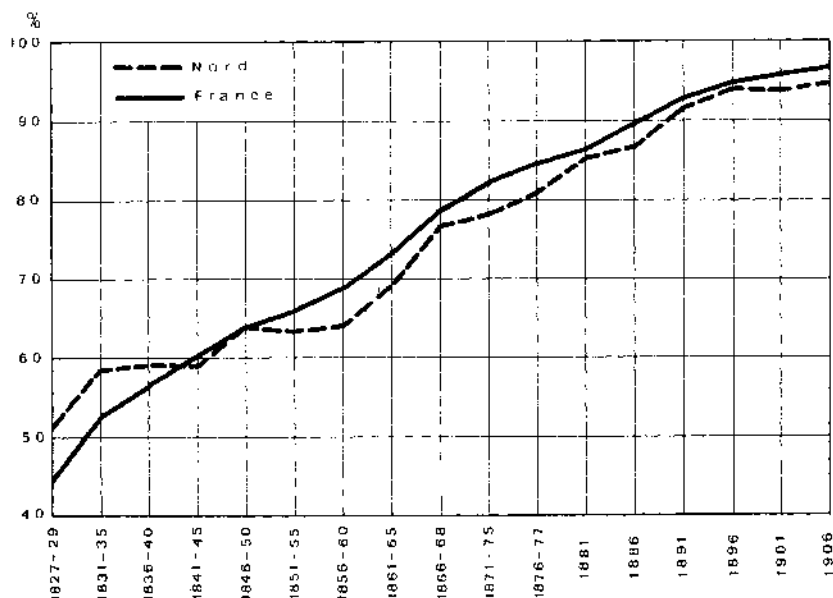
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It is rarely easy to trace the social aspects of industrialization, and the statistical information which we possess on social and occupational groups rarely permits the historian to isolate clearly the manual labour force which constituted the essential feature of modern industrialization. In the countryside it is often difficult to define because so many occupations are concealed by the single category of agricultural labour. In the towns it is no easy matter either to distinguish between workers in industry, and the artisan, or sub-artisan, groups who represent the pre-industrial sectors of the population. Urbanization is an extremely old phenomenon and one that is closely connected to traditional society, and it may easily hide certain aspects of the process of modern industrialization or even give them a totally false and deceptive appearance.

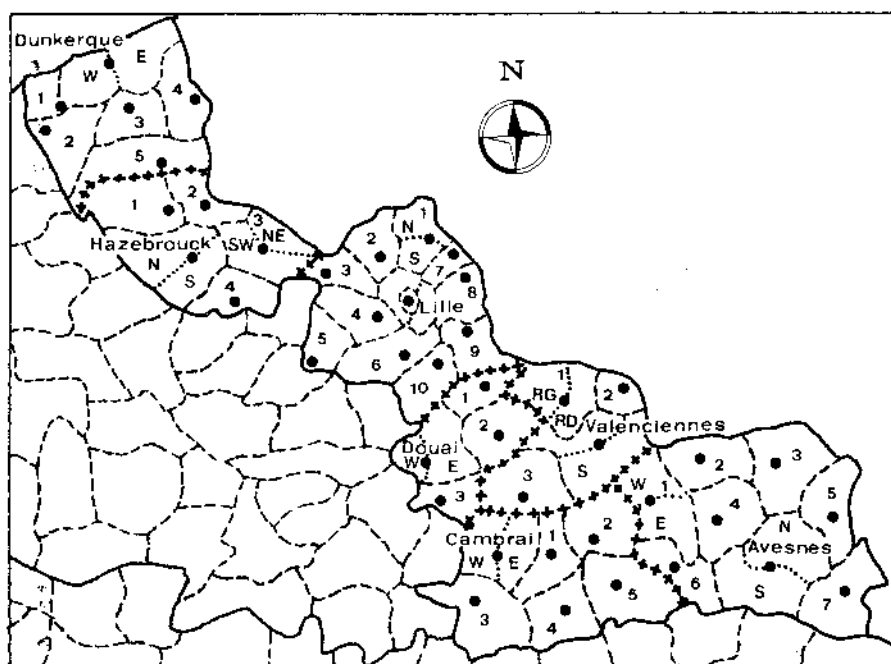
It is essential then to distinguish clearly between two forms of urbanization and urban life, the first being the traditional, based around an artisan structure, the second being modern and industrial. To define the influence of industrialization on social and cultural life it is necessary to establish first the nature of the two contrasting environments which accompany these two different types of urban organization.

The object of the present essay is to examine this situation in

Literacy rates amongst conscripts (those 'able at least to read') in the 19th century



Districts and cantons



DUNKERQUE: 1 - Gravelines; 2 - Bourbourg; 3 - Bergues; 4 - Hondschoote; 5 - Wormhoudt.
 HAZEBROUCK: 1 - Cassel; 2 - Steenworde; 3 - Bailleul; 4 - Merville. LILLE: 1 - Tourcoing;
 2 - Quesnoy-sur-Leule; 3 - Armentières; 4 - Haubourdin; 5 - La Bassée; 6 - Seclin;
 7 - Roubaix; 8 - Lannoy; 9 - Cysoing; 10 - Pont-à-Marcq. VALENCIENNES: 1 - Saint-Amand;
 2 - Condé; 3 - Bouchain. DOUAI: 1 - Orchies; 2 - Marchienne; 3 - Arleux. CAMBRAI:
 1 - Carnières; 2 - Solesmes; 3 - Marcoing; 4 - Clary; 5 - Le Cateau. AVESNES: 1 - Le Quesnoy;
 2 - Bavai; 3 - Maubeuge; 4 - Berlaimont; 5 - Solre de Chateau; 6 - Landrecies; 7 - Trélon.

terms of the impact on literacy in the context of a highly industrial region of France in the 18th and 19th centuries, the *département du Nord*.

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For this we have used two principal types of source material, first taking signatures on marriage contracts as an indicator of the level of literacy and secondly using the 19th century statistics on education and literacy.

I. *Marriage contract signatures*

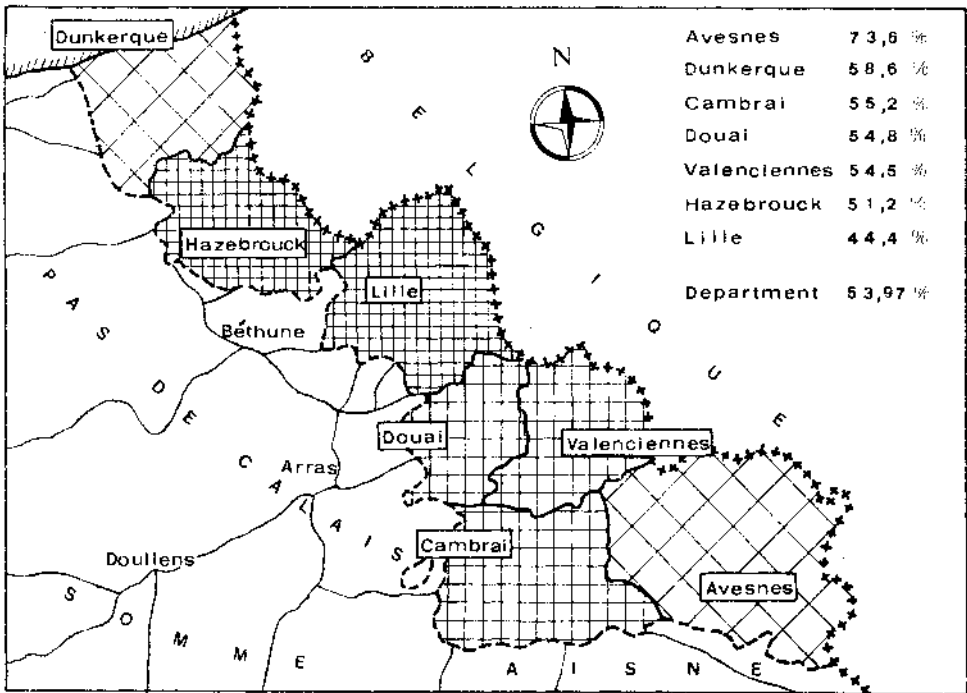
Three separate studies on the 18th century which are based on the same sources (signatures on marriage contracts and documents) make it possible for us to reconstruct the structure of literacy in the *département du Nord* for that period. They do not all cover the same geographic area, however, and only two provide comparable information for the department as a whole or for the *arrondissement* of Lille.

The findings of the Maggiolo survey cover the Department as a whole in the late 18th century (1786-1790), and provide a useful sample as it was based on 2,600 marriage contracts. It does, however, tend to overestimate the size of the rural population at the expense of the urban, and as in this region town and countryside are more closely juxtaposed than in any other, any attempt to assess a Department average in this way has little practical meaning.

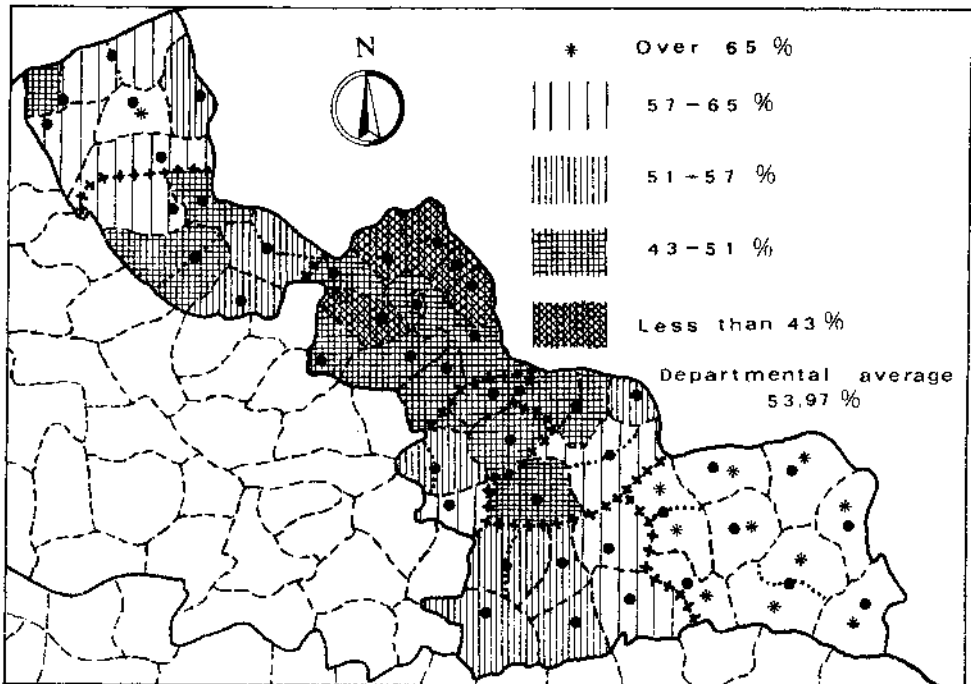
The second series of information comes from another survey conducted at the same time as the Maggiolo survey. This is the « History of Primary Education prior to 1789 in the Communes which now constitute the *Département du Nord* » by Fontaine de Resbecq which was published in 1878. This survey covers a longer period than Maggiolo and also has the added advantage of recording against each commune the number of couples (men and women are separately registered) who signed the marriage deed both for the period as a whole (1750-1790) and also for the year 1789 alone.

The general results for the Department given by the two surveys are given below.

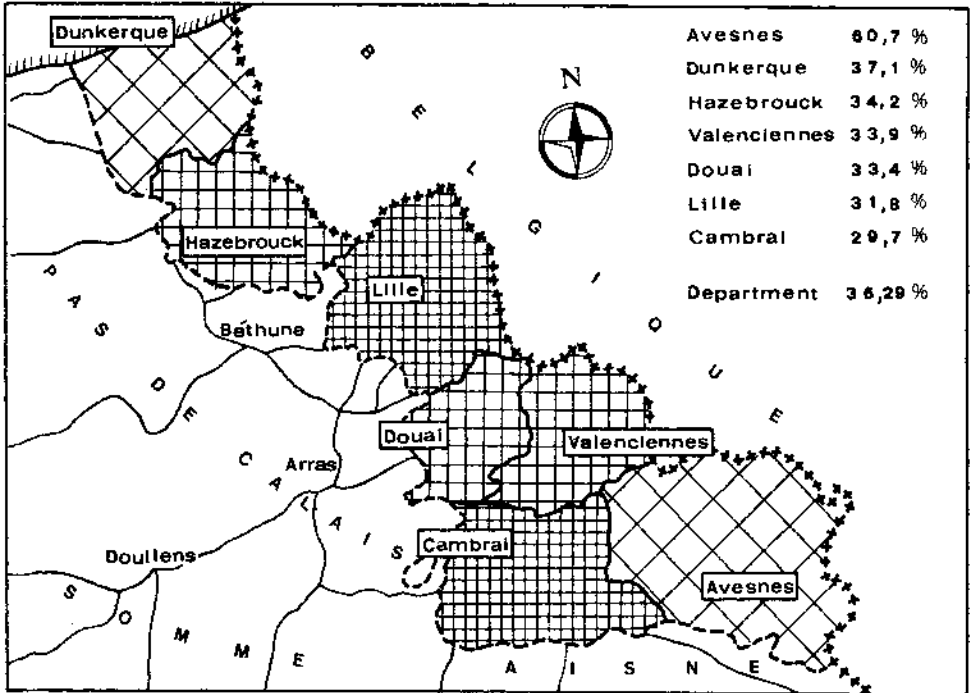
Signatures on marriage deeds - Men (1750-1790)



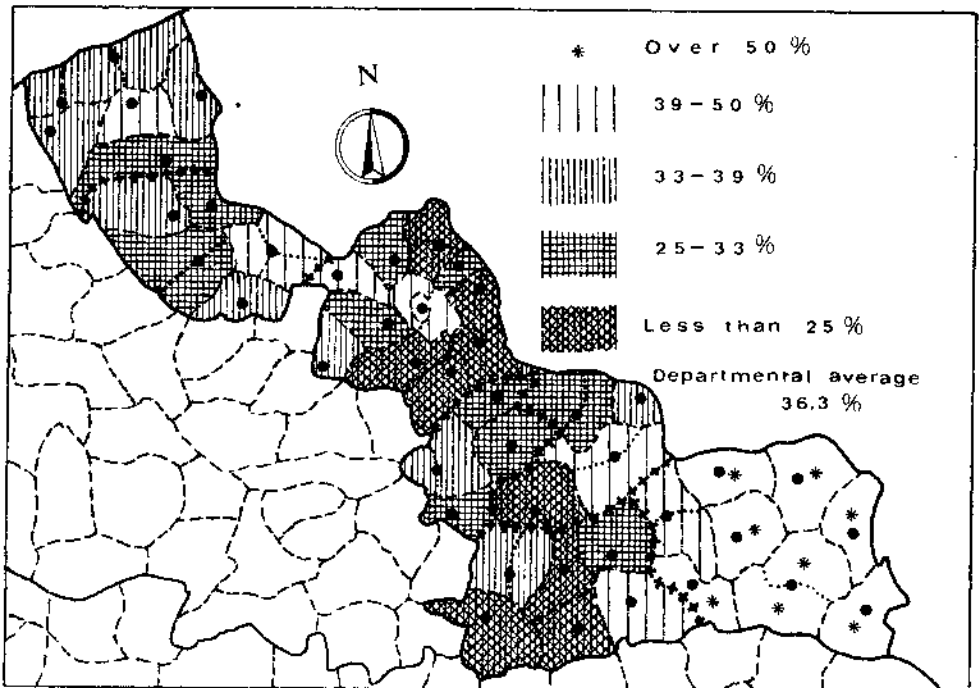
Signatures on marriage deeds - Men (1750-1790)



Signatures on marriage deeds - Women (1750-1790)



Signatures on marriage deeds - Women (1750-1790)



		Men (able to sign their name)	Women (ditto)
Maggiolo	(1786-1790)	51.38%	29.32%
Fontaine de Resbecq	(1750-1790)	53.9 %	36.3 %

The similarity of the figures for the men is noticeable (F. de R's slightly higher figure is probably due to the inclusion of the urban statistics which Maggiolo in general underestimates, and this also has the effect of fully compensating his survey for the difficulties arising from the longer period covered). The differences in the figures for the women are, however, surprising, but can probably be explained (although this theory needs to be proved in greater detail) by the fact that there was a higher rate of literacy amongst women in the towns (in relation to men) which would have the effect of reducing the size of the gap between the two averages at the Departmental level.

In order to attempt a more detailed analysis we have taken de Resbecq's figures for the percentages of marriage signatures in each commune, and we have then aggregated these figures at the level of the *canton* and the district (*arrondissement*), following the administrative organization of the 19th century.¹ In this way de Resbecq's figures for the district of Lille can be compared with the results of a survey conducted in 1973 by two students of Lille University, M. Cottez and M. Perin, which provides percentages of marriage signatures in 36 parishes (and in fact for 34 areas as there are three parishes in Lille itself) in the district of Lille. The results of the two surveys are compared below.

		Men (able to sign their name)	Women (ditto)
Fontaine de Resbecq	(1750-1790)	44.4 %	31.8 %
Cottez-Perin	(1737-1789)	42.58%	32.6 %

¹ The towns (Lille, Avesnes, Douai, Valenciennes, Hazebrouck... etc.) were at this time divided into a number of cantons, and we have been obliged to credit the different cantons of a single town with uniform rates. (Translator's note; throughout, administrative areas have been anglicized as follows - department [*département*], district [*arrondissement*], canton [*canton*]).

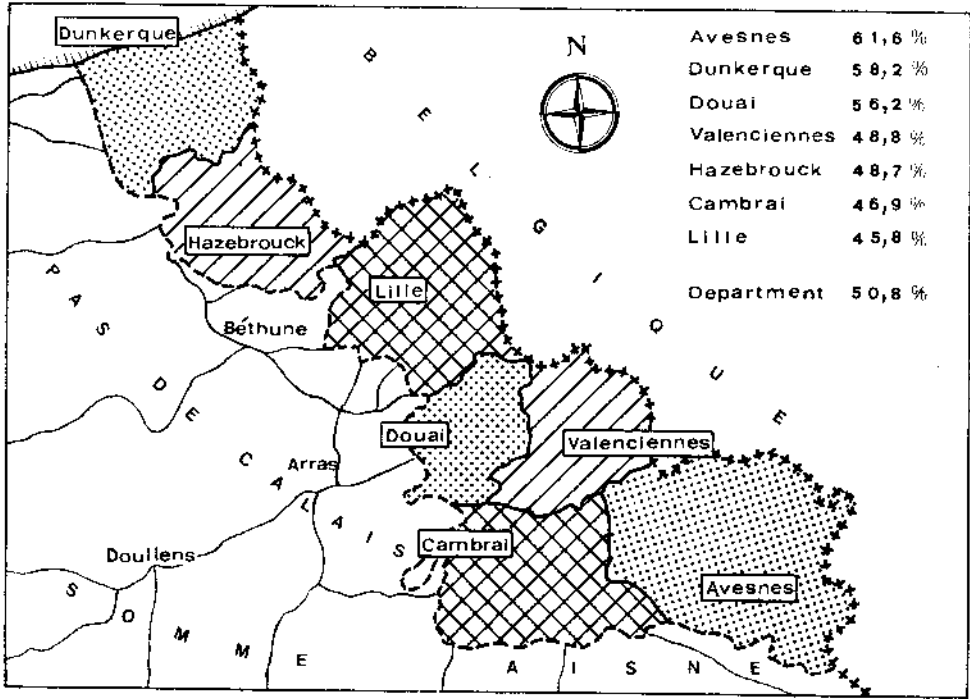
The averages are in fact very close, especially those for women which are less than a unit apart even though the two periods differ and the Cottez-Perin figures are based on a longer period. The gap of two units in the figures for the men is more important, but can partly be explained by the fact that, unlike de Resbecq, Cottez-Perin excluded widowers and widows who remarried in order to avoid duplications. But as widowers exceeded widows this perfectly correct procedure would have the effect of reducing the average of the percentage of men capable of signing their own name. The contradictory variations of the respective figures for men and women in the two surveys does not suggest any practical cause but does perhaps call into question the representativeness and accuracy of the Cottez-Perin survey, although the variations are certainly too slight to affect the value of their overall findings.

As far as the 19th century is concerned, the Maggiolo survey gives figures for marriage signatures for the years 1816-20. Thereafter — but only from 1854 — they are provided regularly by the *Statistique Générale de la France*. In both cases they deal only with the Department as a whole. For a more detailed study we have been able to draw on two unfortunately rather isolated studies; the numbers of the couples able to sign their marriage deeds in towns that were district boroughs (*chef-lieux d'arrondissements*) or else had over 10,000 inhabitants, in the year 1863; the same figures classified by district for the year 1866 (in the National Archives).

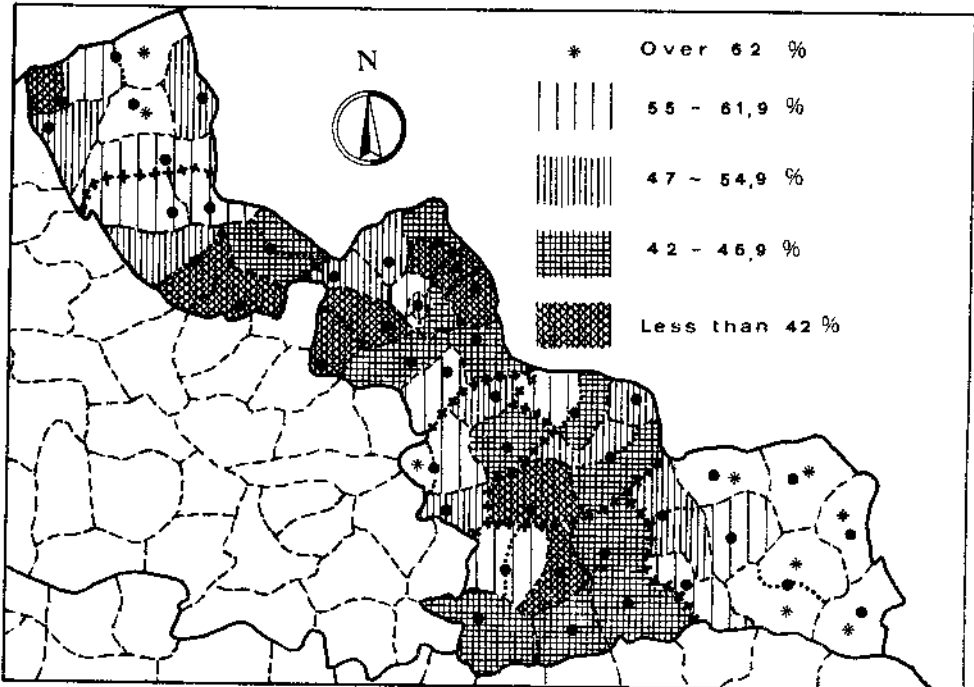
II. *Levels of education*

These figures are available only for the 19th century. The principal source is provided by the information regarding the literacy standards of army recruits contained in the « Army Recruitment Accounts » published each year by the Ministry of War. After 1827 each account contains a « Table indicating, by Departments, the number of young men in the class of... who are capable of reading and writing » (in 1827, Table 4, p. 93). The conscripts were in fact classified in three groups (« Unable to read or write », « Able only to read », « Able to read and write », « Education unascertainable »),

Literacy of conscripts (1827-1829)



Literacy of conscripts (1827-1829)



but the military authorities considered for many years that only those who were unable to read or write were "illiterate". The figures of the recruits who were at least able to read are the ones that were reprinted in the *Statistics of Primary Education* (especially in Vol. II which deals with the period 1829-77) under the Third Republic, and these are the ones which we have used to construct a graph of literacy in the *Nord* in the 19th century.²

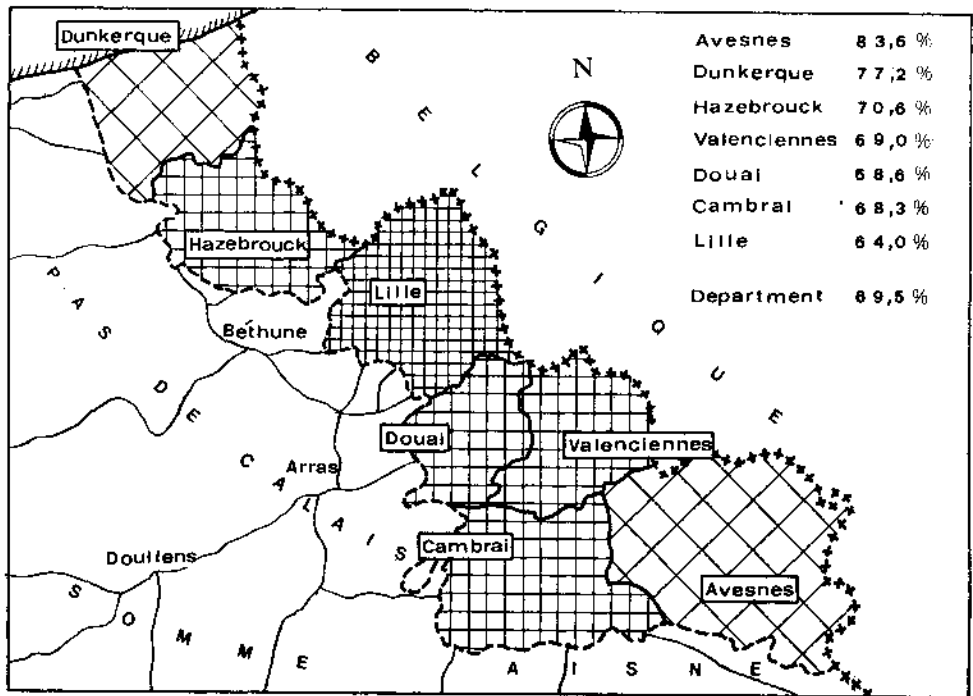
For the detailed study which we wish to conduct, the value of these figures lies in the fact that they contain for certain periods a break-down of the percentages of conscripts from the *Nord* in terms of individual cantons — for 1827-9 (in the National Archives), for 1867-71 (*Annuaire Statistique du Département du Nord*, 1874) and after 1878 (National Archives).

Finally the census-returns for 1866 and 1871 provide information, as is well known, on educational attainments both at a Departmental level, for each district borough, and for towns with more than 10,000 inhabitants. Clearly then the information regarding army recruits makes it possible to construct a graph of the development of literacy for the Department as a whole and the tendencies evident from this can be confirmed by looking at the other sources.

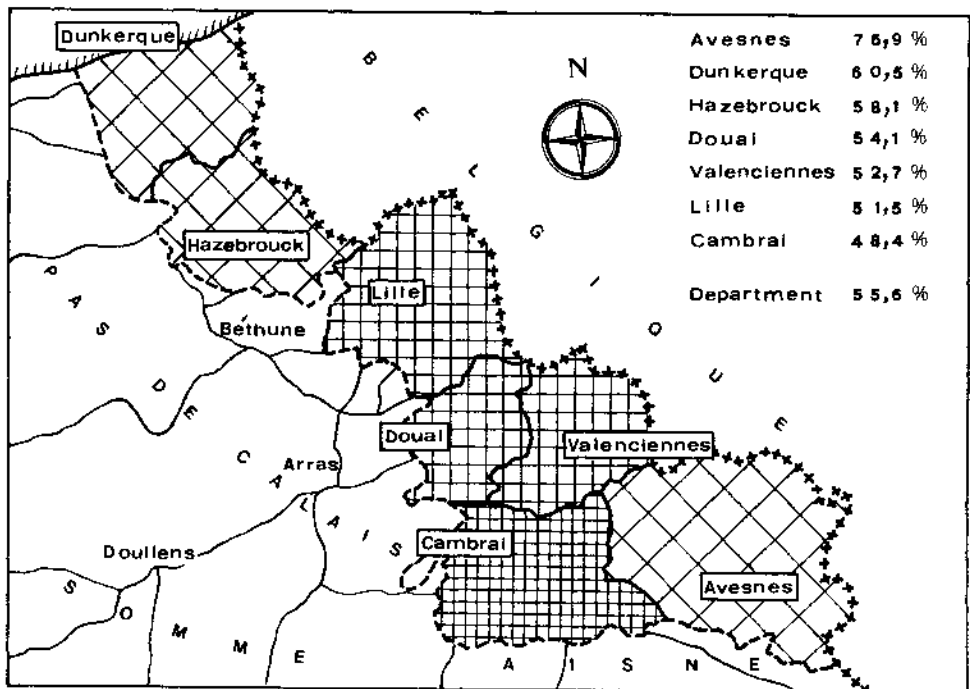
Before we start constructing this graph, however, it is worth noting that the situation in 1827-9 was flattering for the Department. Young men in the Department showed a level of education which was above the national average, and 51% of the Department's recruits were able at least to read as against the national average of only 44.8%. The Maggiolo figures also indicate that between 1786 and 1790 the percentage of males able to sign their marriage deeds meant that the *Nord* enjoyed a similar advantage over the rest of the country (51.3% for the *Nord*, 47% for France as a whole — for women the figures were respectively 29.3% and

² After 1873 the categories were for the first time made more precise, and those conscripts able to « read, write and count » (after 1878 « Possessing more advanced primary education ») were registered separately, as were those who were *Bacheliers es-lettres* or *es-sciences*. Also after 1878 mention was made of those who « had obtained the diploma or certificate instituted by the law of 21th June 1865 » (which after 1890 was referred to simply as the « diploma of primary education »).

Signatures on marriage deeds - Men (1866)



Signatures on marriage deeds - Women (1866)



26.8%). But this was still only slight lead, and the Maggiolo figures show that between 1816 and 1820 the *Nord* was no longer above the national average, and that the percentage of men able to sign their marriage deeds (48.5%) was slightly lower than the pre-Revolution figure (51.3%), although this was a rather exceptional case.

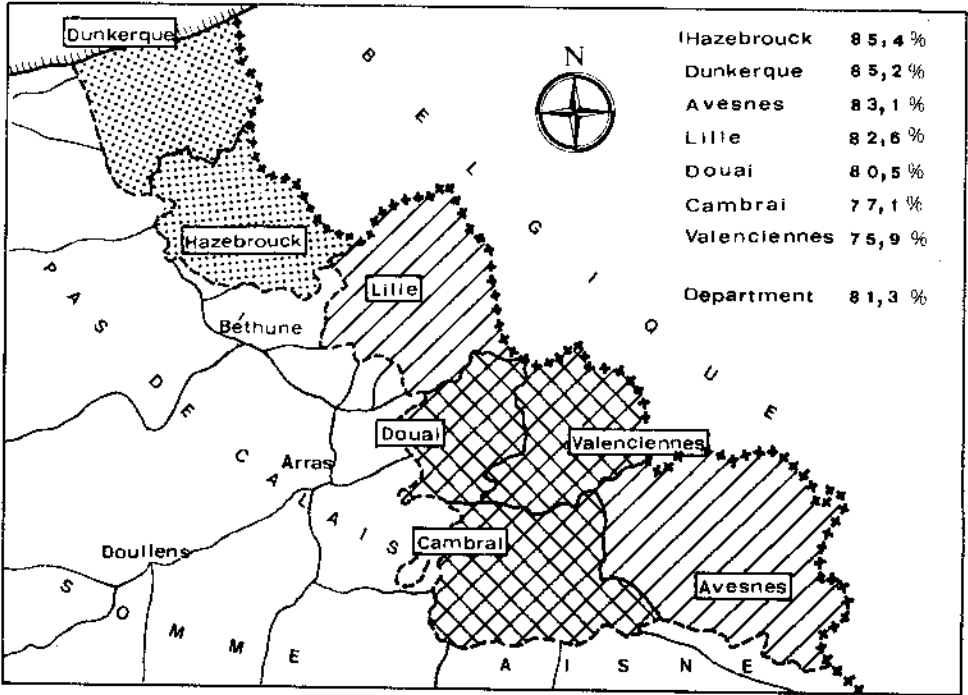
The literacy of army recruits from the *Nord* continued to be above the national average for some time. Between 1831 and 1835 the graph shows a steady increase which runs parallel with that for the country as a whole. A first slump occurred between 1841 and 1845 when the *Nord* fell slightly behind the national average which was continuing to increase. A short recovery was followed, after 1846-50, by another slump and the *Nord* was then clearly outpaced (by about 5% between 1856 and 1860). The progress resumed but at about the same as the national rate, so that the *Nord* was never again able to make up the ground lost between 1840 and 1850 and then again, although to a lesser extent, in the 1870s (the gap which had been narrowed to 2% between 1866 and 1868 reached 4% in 1876-7). By the start of the 20th century the *Nord* was definitely behind the national average (by some 2%).

If we consider only the five-yearly averages, however, there is only one absolute trough for the conscripts from the *Nord*, and this was in 1852-6 when the percentage of total illiterates reached 37.5%, as against 35.5% in the previous quinquennium. This was an exceptional occurrence at a Departmental level, and brings to mind the situation in industrial England.

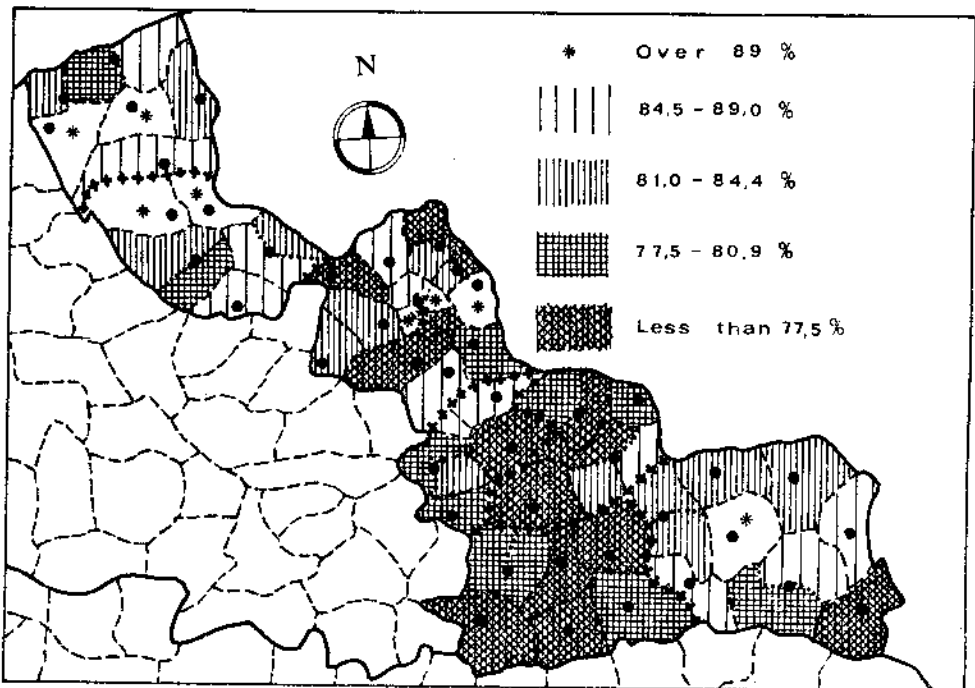
If we now turn to the yearly reports on conscripts' education³ it is possible to detect three main periods in the development of literacy in the *Nord* in the 19th century. At the outset there were twenty years (1828-46) of very slow progress, with an increase of 7.7% in the number of literates (« able at least to read ») representing an annual rate of increase of about 0.4%. On a national level progress was much more rapid, and showed an overall increase

³ Ignoring 1827 - this was the first year in which the literacy rates of conscripts were recorded and the figures tend to be dissimilar to those of the following years, the percentage of literates being ten points (44% against 54%) below that of 1828 and 1829.

Literacy of conscripts (1878-1880)



Literacy of conscripts (1878-1880)



of 18% in the same period. This was then followed by a full ten years of marking time. The figure for 1856 was in fact 0.1% lower than that for 1846, while the national average in the same period, although advancing less rapidly than before, increased by 4%. But in the late 1850s there was a revival in the *Nord*, and in the first years progress was more rapid than the national average. Between 1856 and 1871 there was an increase of 16%, or 1% per year, as against an overall gain of 12.8% for France as a whole.

An identical pattern is evident from an analysis of signatures on marriage documents. From Maggiolo however it is clear that the *Nord* dropped behind the national average for a marriage signatures in the years 1816 to 1820, both for males and females. By 1900, when the literacy rate amongst conscripts from the *Nord* was below the national average, the number of male signatures on marriage deeds (but not those of women) had just about regained the national average.

SIGNATURES ON MARRIAGE DEEDS

	Men		Women	
	Nord %	France %	Nord %	France %
1786-1790	51.3	47.0	29.3	26.8
1816-1820	48.4	54.3	32.6	34.7
1854-1855	64.2	68.4	51.8	52.6
1856-1860	61.9	74.1	47.3	53.9
1861-1865	67.4	71.8	55.6	57.5
1866-1870	68.2	75.0	55.3	62.3
1876-1877	76.8	81.3	66.8	70.6
1880	73.4	83.9	69.5	75.5
1890	89.2	91.6	82.5	87.4
1900	95.6	95.6	91.9	93.7

With these exceptions, however, the curve followed by the signatures on marriage documents show (for those periods where they can be followed continuously, that is from the mid-19th century) the same slumps which the army conscription statistics had revealed (for men only, of course). They show a levelling out of progress in

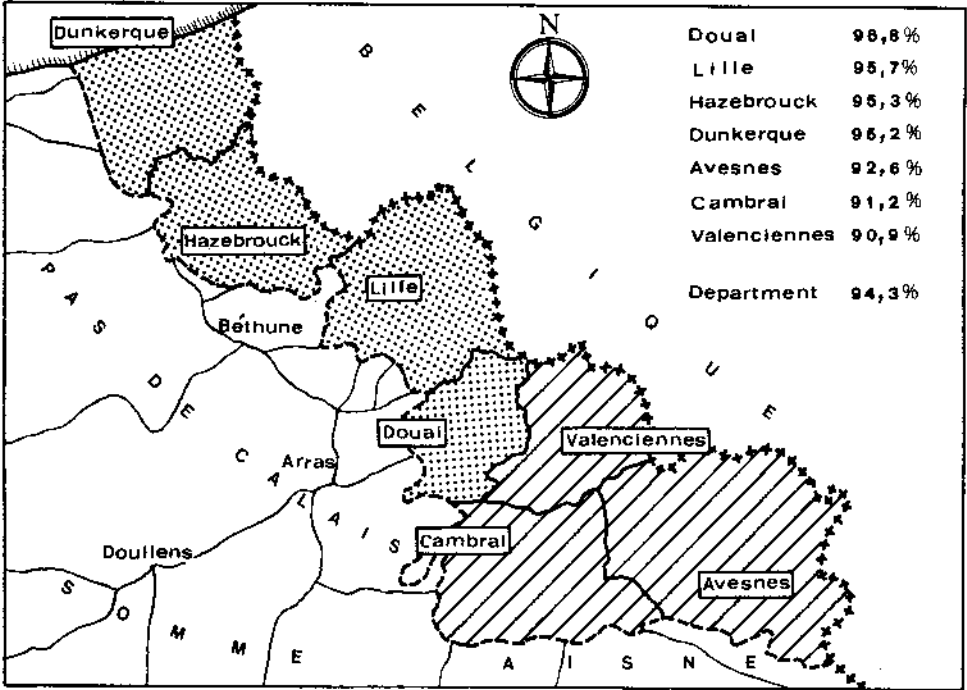
the years 1854-1860, involving not only a halt in progress but also an absolute decline. Then, just as with the conscript statistics, they indicate that there was a recovery after 1861-5, but then twenty years later, after 1880, the average falls once more. This second source, the signatures on marriage deeds, show then that the *Nord* declined in the Departmental hierarchy of literacy in France: while in 1854-5 it was in 49th position for males and 34th for females, it had after 1876-7 dropped to 59th and 50th positions respectively, and it maintained these mediocre ratings until the end of the century.

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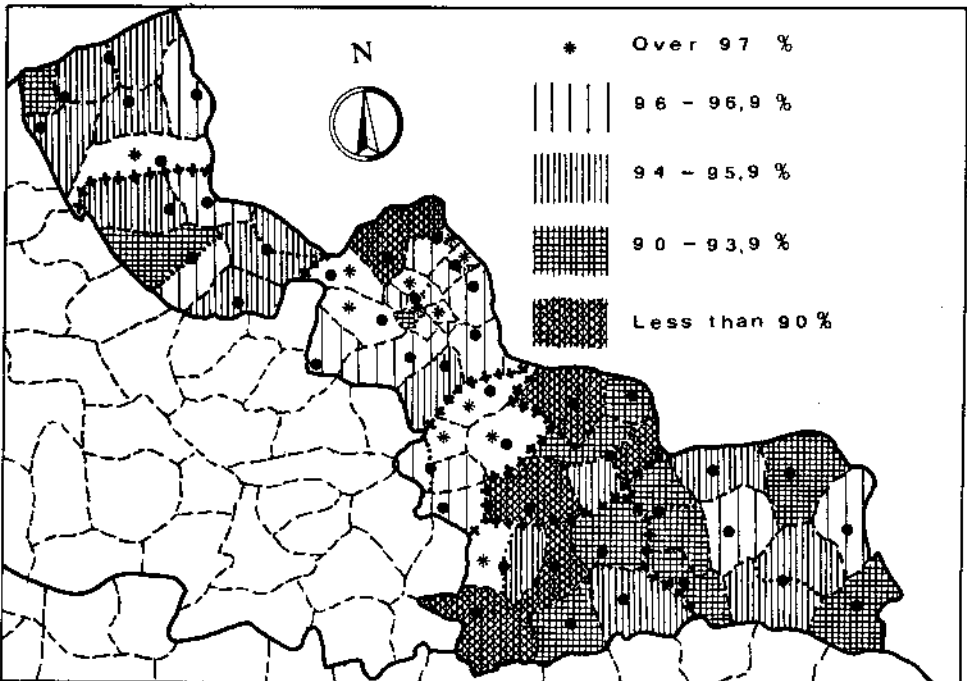
This general curve, and the data on which it is based, give rise, however, to a number of problems as well as a series of questions. Let us consider first an exception to the general assumption that, in 18th-century France, the towns were almost always ahead of the country areas in terms of literacy. The information we have in the sources used above shows in fact that it was the most urban of the districts surveyed, that of Lille itself, that stands out as a stark exception to this generalization. This is particularly so if we take the map of male literacy which we have reconstructed from the data provided by Fontaine de Resbecq. In this period in fact the district of Lille proved to be 10 points behind those of Cambrai, Douai, and Valenciennes, 14 behind Dunkirk, and 30 behind Avesnes. But Avesnes was of all these the most distinctly rural district. How can this be explained?

There is a second surprise to be found in the same data. Although the gap between the male and female ratings for the Department as a whole exceeds 20 points in Maggiolo's survey and 17 in de Resbecq's, the gap is considerably narrower if the district of Lille is taken on its own — in de Resbecq's survey 12 points, and in the Cottez-Perin survey only 10. This in other words would suggest that the district's backwardness was due essentially to the low percentage for males. In fact working from the statistics of female signatures on marriage deeds (drawn from de Resbecq's data) we find that Lille is no longer out on its own, but that the lowest score now goes to Cambrai, and although the Lille percentages are still

Literacy of conscripts (1899-1904)



Literacy of conscripts (1899-1904)



lower than those for Avesnes and Dunkirk, they are very much the same as those of Hazebrouck, Valenciennes and Douai. About a third of the female population of Lille were capable of signing their names. This percentage was then higher than the national average even though the masculine percentage was considerably below it. In this backward district we find then a strong feminine contribution which is revealed in the abnormally small gap between male and female performance. This in turn would seem to suggest that whatever hindered the progress of male literacy in this part of the Department did not seem to have affected women in the same way.

As for the literacy curve itself, the causes of which we shall return to later, this also conceals some surprises. Its relative independence from the development of primary school institutions, for example, is particularly striking. Certainly the appearance of the primary school does explain one phase of the curve, that is the somersault which occurred between 1846 and 1851 at the end of the long period of very slow progress from 1830 to 1850. This sudden and unexpected increase would seem to correspond with the schooling which developed in the *Nord* in the brief period between 1833 and 1836 in the years after the Guizot law was put into effect. Between 1828 and 1836, for example, the numbers of children in schools increased by 53% and the percentage of children at school reached the record figure, for the *Nord*, of 570 per thousand, although by 1842 it had again fallen back heavily to 505 per thousand, where it remained for the next twenty years. The importance of this particular coincidence should not be exaggerated however. The army conscripts of 1847-8, for example, who were six years old when the Guizot law came into effect, and so would have been able to take advantage of the new schools for the whole of their childhood, attained a literacy rate of 62-63%. But the conscripts of ten years earlier, of 1837-8, were also 60% literate . . . without the advantage of the Guizot schools! At the same time the recruits in the "bad years" ("bad" from the point of view of literacy - 1850-56) had all been subject to the new schooling system. Conversely, when there was a sudden

increase in the literacy rate later (an increase of 12.5% between 1860 and 1868) this was amongst recruits educated in the 1850s, before the reform of schools and colleges carried out by Victor Duruy and even Rouland. Contrary to what one might expect, it is not possible to argue a direct causal relationship between schooling and literacy.

* * *

To settle some of these problems, we must turn from the general Departmental figures to look more closely at the details, which will allow us to define the different activities of the various regions. Turning from the Department, we must look rather at the district, the canton and even at individual communes to compare the opportunities of education which they offered children.

First, what were the levels of literacy in different parts of the *Nord* in the second half of the 18th century?

MARRIAGE SIGNATURES (1750-1790) MEN *

	%		%
Avesnes	73.6	Valenciennes	54.5
Dunkerque	58.6	Hazebrouck	51.2
Cambrai	55.2	Lille	44.4
Douai	54.8		

Departmental average: 53.97%

MARRIAGE SIGNATURES (1750-1790) WOMEN

	%		%
Avesnes	60.7	Douai	33.4
Dunkerque	37.1	Lille	31.8
Hazebrouck	34.2	Cambrai	29.7
Valenciennes	33.9		

Departmental average: 36.29%

* By districts, as are the tables on pages 25, 27.

This Table is based on the data from Fontaine de Resbecq's survey, and the large gaps between the different districts and cantons, both for men and women, are especially striking. The

average Departmental percentage for men was 54%, but the district of Avesnes reached 73.6% and that of Lille only 44.4% — a gap of nearly 30 points. For women there was also a gap of over 30 points between Avesnes again (60.7%) and Cambrai (29.7%). If we look at the cantons, the gaps become even greater as in the cases of Solre and Tourcoing with percentages respectively for men (79.9% and 29.1%) and for women (77.8% and 20.1%).

The second noticeable feature is the performance of the district of Avesnes and all its cantons in the late 18th century. Nearly a century later, Dunkirk was the only district to have equalled it, while the Departmental average still lingered far behind. In fact Avesnes in the late 18th century, a century in advance, already had literacy rates of the late 19th century. Of the other leading districts in the late 18th century, Dunkirk also stands out both for men and for women. Although a long way behind Avesnes, it was well head of the other five districts. These two were not only the most rural districts in the Department, they were also the most thinly populated.⁴

Behind the leaders the three districts of Cambrai, Douai and Valenciennes are all grouped together with an average of 55% for male signatures. These were also largely agricultural districts, and they also had a number of traditional towns; but textile industries were developing in the countryside. At the bottom of the list came the two most industrialized districts: Hazebrouck and, above all, Lille.

This order is confirmed by the cantonal distribution. The cantons in which rural textile industry was strong, Hainaut, Cambrésis and the Hazebrouck-Bailleul region, were all marked by low literacy rates. In particular, the cantons with the highest rates of illiteracy were all grouped on the perimeter of the Lille industrial region, especially where the most recently established textile industries were sited, for the guild regulations there were more lax than

⁴ See RAOUL BLANCHARD, *La densité de population du département du Nord au XIXe siècle*, Etude de dix recensements de population (Lille 1906).

in the Flemish capital⁵ — these included the cantons of Roubaix (33.7% literate) and Tourcoing (29.1%). These cantons included the town of Lille, which attained slightly less miserable rates, although these were distorted by the nature of the sources as bourgeois and working class districts were mixed together pell-mell. The totally artificial nature of the resulting average (49.7% literate) is evident when one takes account of the very low figures (about 30%) for the working class places — such as Faches or Ronchin — which lay by the side of the poorest sections of the city. This is borne out by the parish data (provided by Cottez-Perin). In Lille the wealthy parish of Saint-Etienne enjoyed a literacy rate of 73.5%, whereas the two other poor parishes of Saint-André and Saint-Sauveur reached only 37% and 34.5% respectively. The parish survey also provides interesting indications of the immediate consequences of the establishment of new industries, for example from the first coal-mining centres opened up by the Anzin Company which was formed in 1757. In three out of four of these (Anzin, Vieux-Condé, Raismes) the percentage of males signing marriage deeds for the year 1789 alone was decidedly lower than the average for the years 1750-90: 36% as opposed to 53% for Anzin, 0% against 35% for Vieux-Condé, 30% against 55% for Raismes. Only in Fresnes was there any sign of progress, but this in fact was the area least affected by the mining operations.⁶

The cantons of the district of Avesnes, on the other hand, were all at the head of the cantonal averages, and were followed by the other rural cantons, especially those of the districts of Dunkirk (like Bergues, for example). The spectacular lead held by Avesnes and its cantons remains a mystery. This is increased by the fact that of the four cantons with the highest literacy rates, two were purely agricultural (Berlaimont and Avesnes), and in the other two traditional rural industries had always played a fundamental role (Solre and Maubeuge). In the absence of other detailed

⁵ For this, see: JULES FLAMMERMONT, *Histoire de l'industrie à Lille*, Conférences organized by M. A. de Saint Léger (Lille 1907).

⁶ On the development of the coal mining industry, see: A. LEQUEUX, *L'évolution de l'industrie houillère dans la Région du Nord*, in « Bulletin de la Société de Géographie de Lille » (1936, nos. 7 & 8).

studies we can go no further at present than to pose certain questions: did the cause lie in the traditional Protestant influence in the area? or in the community interests of the inhabitants (who took care to maintain well-organized schools)? or is it to be found in the rural nature of the region which proved to be equally hospitable to traditional industries and mining activities which were both prosperous and relied on artisan organization?

The advanced rates of literacy in these rural areas must not, however, be over emphasized or treated as a general advance of the countryside over the towns and villages. In general, when rates in the countryside and the towns are compared, it is apparent that the towns were ahead of the areas which surrounded and depended on them. Of the seven future district boroughs of the Department, for example, only two, Avesnes and Hazebrouck (which were much the smallest), had lower literacy rates than the rest of their cantons, and only Hazebrouck had a lower figure than the rest of its district. This was also only as far as men were concerned, and this was also the case for most of the other exceptions (Quesnoy-sur-Deule, Le Cateau, Solesmes, Saint-Amand...). The lead enjoyed by the towns and large villages over their surrounding neighbourhoods (in this case the remainder of their cantons) was often very considerable:

	Men %	Women %		Men %	Women %
Bailleul	+13.9	+25.8	Dunkerque	+13.0	+19.5
Bergues	+18.6	+18.6	Haubourdin	+15.9	+16.0
Cassel	+12.1	+17.0	Lille	+10.4	+14.0
Douai	+ 8.4	+23.1	Roubaix	+ 4.7	+ 7.7
etc. . . .					

It appears then that those living in towns were more literate than those in the surrounding countryside, and this seems to be true for both the advanced⁷ and the backward areas. Was this due to the higher proportion of "notables" in the towns and

⁷ In the district of Avesnes, however, the gaps were very slender, and the general rule that the towns enjoyed an advantage over the surrounding areas did not obtain, but nor was it totally disproved. In the 8 cantons, the areas lying around the towns had an advantage in 5 cases (Avesnes, Landrecies, Maubeuge, Solre) but in the others 3 towns (Bavai, Le Quesnoy and Trélon) held the lead.

TOWN AND COUNTRY AREAS (1750-1790)
(marriage signatures)

	Town or village		Not including chief town or village	
	Men %	Women %	Men %	Women %
Avesnes	76.0	67.8	79.0	64.8
Maubeuge	77.5	68.6	79.3	71.1
Trélon (bourg)	78.7	65.7	73.4	60.9
Le Quesnoy	70.0	60.4	66.5	44.3
Hazebrouck	45.7	34.8	46.7	28.7
Bailleul	63.0	56.6	49.1	30.8
Dunkerque	66.2	43.9	53.2	24.4
Bergues (bourg)	75.3	55.5	56.7	36.9
Bourbourg (bourg)	62.0	42.9	55.2	34.9
Hondschoote (bourg)	60.0	48.8	53.9	29.7
Douai	61.1	48.3	52.7	25.2
Orchies (bourg)	55.9	45.9	45.9	22.3
Cambrai	55.8	46.5	52.2	18.9
Valenciennes	63.4	48.1	55.7	35.8
Saint Amand	39.3	30.8	51.6	24.8
Lille	50.6	40.3	40.2	26.3
Armentières	52.0	43.5	47.0	36.4
Roubaix	35.8	31.0	31.1	23.3
Tourcoing	24.3	18.1	30.9	20.9
Haubourdin (bourg)	55.8	48.5	39.9	23.9
Seclin (bourg)	48.4	31.3	43.4	23.2

boroughs in contrast to small villages? Or due to the example set there by the bourgeoisie, which was evident to all? Was it the case that schooling was better effected than in the countryside? Whatever the cause we can at least be clear that urbanization did not necessarily stifle literacy. The generalization drawn from the 18th century, that the oldest urban centres were also the ones with the highest literacy rates, was also still valid. But what we must do is to distinguish between the traditional urban areas and the more recently developed urban areas. We find that there were also urban cantons which trailed behind their districts, such as Roubaix with 33.7% of males able to sign their marriage deeds or Tourcoing with 29%. Here we are confronted not only by extremely low percentages, but also by areas which had only recently become

urbanized and which also constituted reservoirs of unskilled labour drawn into them by the demands for labour arising from the newly established textile industries. The conclusion which we should draw then seems very similar that of Michael Sanderson for Lancashire;⁸ not only does modern industrialization not create a demand for skilled labour, it also tends to depress urban literacy rates. In order to be completely sure of this it would of course be necessary to compare similar occupational groups, and manual workers in particular, from each of the two situations, the traditional and the new urban centres, and also discover the dates at which they had moved into the towns. This has not yet been done, but it would very surprising indeed if the patterns which emerge from the sources which we have discussed in this paper are not to be explained by the phenomenon of industrialization, as opposed to and distinct from urbanization.

Illiteracy amongst women also emerges as a much more general and uniform phenomenon than amongst men, and for that reason was less influenced by differences in regional economic activities. If we leave aside the once more untypical case of Avesnes, the gap between the districts with the highest and lowest literacy rates for women was nearly half that for the male percentages — 7.4% for women (the difference between Dunkirk and Cambrai) and 14.2% for men (the difference between Dunkirk and Lille). In general then women seem to have trailed behind in the growth of literacy.

Although this situation was common nearly everywhere, it did not prevent certain regional variation occurring. In general the more rural the region, the greater the gaps between male and female literacy rates. The following Table illustrates the percentage leads enjoyed by males in the towns of the *Nord* and in the cantons which they administered, and this shows that the gap was particularly wide in the areas immediately adjacent to the towns:

⁸ M. SANDERSON, *Social Change and Elementary Education in Industrial Lancashire 1780-1840*, « Northern History », III, 1968.

DIFFERENCES BETWEEN MALE AND FEMALE RATES
(+ indicates male lead)

	Town or village %	Remainder of canton %		Town or village %	Remainder of canton %
Avesnes	+ 8.2	+14.2	Haubourdin	+ 7.3	+16.0
Bailleul	+ 4.4	+18.3	Hazebrouck	+10.9	+18.4
Bergues	+19.8	+19.8	Lille	+10.3	+13.9
Cambrai	+ 9.3	+33.3	Roubaix	+ 4.8	+ 7.8
Cassel	+20.4	+25.3	Seclin	+17.1	+20.2
Douai	+12.8	+27.5	Tourcoing	+ 6.2	+10.0
Dunkerque	+18.3	+28.8	etc. . . .		

The most extreme case is that of Cambrai, where male and female rates were 9 points apart in the town and then 33 in the adjacent cantons. In view of the poor level of female literacy in the Cambrai country-side it is worth mentioning that at the end of the 18th century there were over 10,000 rural textile looms in the area. It was a poor area, where women and girls worked permanently on the textile looms, and here schooling for women was almost certainly more difficult than elsewhere, and where there were of course also very few bourgeois women.

This is confirmed if we look then at the district of Lille, canton by canton. Once again it is the case that the rural cantons like Pont-à-Marcq and Cysoing have the widest gaps between male and female rates, and that the figures in these areas are the ones that come closest to the national averages calculated by Maggiolo. But this does not mean that the female literacy rate in the countryside always lagged behind the towns, and the lowest rate recorded was in fact for the district of Tourcoing (20%). The gap between men

DIFFERENCES BETWEEN MALE AND FEMALE RATES
(+ indicates male lead)

	%		%
Canton de Roubaix	+ 6.1	Haubourdin	+14.8
Tourcoing	+ 9.0	Lannoy	+15.0
Armentières	+ 9.4	Seclin	+19.5
Quesnoy-sur-Deule	+10.2	Pont-à-Marcq	+24.5
Lille	+10.7	Cysoing	+25.1
La Bassée	+13.1		

and women was also very slight here, but that was due to the fact that the male rate was also very low.

The two Tables show then that there was a tendency for the towns to bring the performance of men and women closer together, either downwards as in Roubaix and Tourcoing or upwards as in Armentières and Lille. But it was in the more backward cantons subject to recent urbanization and industrialization that the rates were brought closest together and also down to the lowest levels. In the countryside, meanwhile, the gaps between the literacy rates of men and women remained much more definite.

One is tempted to explain this in terms of the contrast between the traditional rural community still subject to a sort of residual patriarchal order in which women could make up lost headway only very slowly, and the equalizing and emancipating influence of the town. The influence of the latter worked in two ways: in the areas of traditional and established urban centres through schooling and cultural pressures, and in the new towns created by the development of industry through the curse, or blessing, of work and through the shared sense of uprootedness. In either case women found themselves sharing a fate increasingly similar to that of the rest of the population, although it is also true that they suffered more often and more immediately its negative than its beneficial aspects.

* * *

The situation appears to have been that the most serious incidence of illiteracy occurred precisely where new and modern industries became established, and the problem then is to decide how the literacy rate developed in such conditions in the 19th century. To follow this up we have concentrated on four principal indicators (the documentation available in Paris also determined our choice), three of which only concern young men: i) literacy rates amongst conscripts 1827-9; ii) signatures on marriage deeds in 1866 (survey by districts); iii) literacy rates amongst conscripts 1878-80; iv) literacy rates amongst conscripts 1899-1904.

I. Literacy rates amongst conscripts in 1827-9

A first observation is that the Departmental average of conscripts who were able at least to read in 1827-9 was lower (by 3%) than that of married men able to sign marriage deeds between 1750 and 1790. The drop is important for three districts (Avesnes, Cambrai and Valenciennes); while for two others it is less pronounced (Dunkirk and Hazebrouck). The data are not entirely

CONSCRIPTS ABLE AT LEAST TO READ (1827-1829)

	%		%
Avesnes	61.6	Hazebrouck	48.7
Dunkerque	58.2	Cambrai	46.9
Douai	56.2	Lille	45.8
Valenciennes	48.8		

Departmental average: 50.8%

comparable, but it is still surprising that fewer men of twenty were able to read in 1827-9 than had been able to sign marriage registers fifty years earlier.⁹ Maggiolo claims that the number of male signature on marriage deeds between 1816-20 were lower for the *Nord* than between 1786-1790 (48.5% as against 51.3%), so he also indicates a slight decrease.

Was this poor start to the new century the result of economic changes in the Department? The question can be answered to a certain extent by looking at the hierarchy of literacy amongst the different regions of the Department. The order is headed, as in the 18th century, by Avesnes and Dunkirk, and heavy industry had not at this time advanced either into the Sambre valley or into Dunkirk. The leading group also contained the district of Douai, as yet not part of the "black country". The district of Lille, on the other hand, was in the midst of the boom in the textile

⁹ Forty years later the number of recruits who were able at least to read was definitely higher than that of male signatures on marriage deeds (78% in 1867-71 against 69.5% in 1866).

industry and came right at the bottom of the list.¹⁰ The poor literacy rates here were shared by the three other industrialized districts (45.8% to 48.8% "capable at least of reading") - Hazebrouck (the decline of the Flemish textile industry to the benefit of the Lille region was only just beginning), Cambrai (where the Restoration coincided with the full expansion of the rural textile industry) and Valenciennes (where coal mining was expanding).

The cantonal map shows that the western part of the district of Avesnes (Le Quesnoy, Landrecies...), lying closest to the nearly illiterate Cambrai region, slowly lost their lead. On the other hand, the highest levels of illiteracy were no longer, as in the 18th century, the sad privilege of the district of Lille, but now appear in the districts of Hazebrouck, Cambrai, Valenciennes as well. But, with the exception of Valenciennes, the cantons in which the principal towns were located, in obedience to the correlation between population density and literacy rates, formed oasis of literacy in the midst of these "poor" districts. This was true of the cantons of Cambrai and Douai, and in Lille itself there is a clear distinction between south and east, the working class areas where there was little education, and the other cantons where literacy rates were higher.

II. Signatures on marriage deeds in 1866

Only the district statistics are available. The three districts with the highest literacy rates were also, and in the same order, the least densely populated: Avesnes (103 inhabitants per Km²),

¹⁰ It is well worth comparing this with the findings of Villermé's inquiry, which was conducted at the same time as the 1827-9 conscript literacy tables (Dr. LOUIS-RENÉ VILLERMÉ, *Tableau de l'état physique et moral des ouvriers employés dans les manufactures de coton, de laine et de soie*, Paris 1840). Especially the chapter in Vol. 1 entitled: « The workers in the manufactories of the Department of the Nord, in general, and in particular those of the towns of Lille, Roubaix and Tourcoing ». Villermé was informed by the Prefect that in 1828 there were 224,300 industrial workers « the majority of which are attached to the cotton factories. Together with their families, they amounted to some 400,000 individuals (at a time when the entire population of the Nord was less than one million), of whom 163,453 were registered with welfare offices, or in other words 1/6 of the entire population. This was far and away the highest number of paupers recorded for any single French department. In Lille itself around 1837, over 30% of the population were paupers... ».

Dunkirk (143) and Hazebrouck (150). Density in the others was much higher, with 194 inhabitants per Km² in Cambrai to 422 in Lille. Was it the case then that where high population density occurred social structure and facilities could not cope, and literacy was blocked?

MARRIAGE SIGNATURES (1866) MEN

	%		%
Avesnes	83.6	Douai	68.6
Dunkerque	77.2	Cambrai	68.3
Hazebrouck	70.6	Lille	64.0
Valenciennes	69.0		

Departmental average: 69.5%

If we then compare the Departmental figures for 1866 with average of signatures on marriage deeds for the period 1750-90 (53.9%) or 1786-790 (51.3% according to Maggiolo), it is evident that progress in the *Nord* had been slow, giving an increase of 14.5% or 17% according to the source. Over the same period the national average had in fact increased by 28 points, rising from 47 to 75%!

Out of the seven districts, three had progressed faster than the Departmental norm - Dunkirk (+18.6%) after being in second place behind Avesnes in the 18th century; and especially Hazebrouck (+19.4%) and Lille (+19.6%), the two districts which had been worst placed in the previous century. The district of Valenciennes had kept pace with the average advance (14.5%). The three which progressed more slowly than the average were Avesnes (+10%), which cannot be surprising in view of the very high rates achieved in the 18th century (although this did not hold back its development all the same), Cambrai (+13.2%) and Douai (+13.8%), affected by the presence of new and traditional industries.

Comparison with the literacy rates of the recruits of 1827-9 is rather difficult in view of the different nature of the sources.¹¹

¹¹ Men at the time of marrying were not of the same age as the conscripts — in 1863, for example, 40.2% of the 1199 men married in Lille were over thirty (13.5% were over forty) as well as 28% of the women.

MARRIAGE SIGNATURES (1866) WOMEN

	%		%
Avesnes	76.9	Valenciennes	52.7
Dunkerque	60.5	Lille	51.5
Hazebrouck	58.1	Cambrai	48.4
Douai	54.1		

Departmental average: 55.6%

However it is evident that after the rapid expansion of coal-mining in the 1840s, Douai had by 1866 dropped out of the leading group and joined the ranks of the industrialized and only moderately literate districts, with rates similar to those of Valenciennes or Cambrai. The district of Lille was in a phase of rapid demographic expansion and remained at the bottom of the list. Hazebrouck on the other hand had embarked on a new path of vitality, and one asks why this was so. Was it because its rural industries had been in decline for some decades? Or because unlike the other districts its population density was no longer increasing (there were 149 inhabitants per Km² in 1832, 150 in 1851, 158 in 1872 — an increase of only 6%, while that in the other districts increased by 23% to 89% in the same period)? Or was it because schooling and education for children was more accessible there?

Turning to the numbers of women who signed their marriage deeds, the first point to notice is that progress was very poor when contrasted with the period 1750-1790. The increase was 19.3%, which was hardly more than for men.

This means that over the course of the century women hardly made any impression on the lead established by men. Comparison with the figures given by Maggiolo for 1786-90 is in fact more flattering, and would give an increase of women signatories of 26%. But Maggiolo's figures, as we have mentioned, are weighted in favour of the rural averages where the percentages of women's signatures were lower than in the towns. Also the same figures still show that the *Nord* was trailing: between 1786-90 (Maggiolo's figures) and 1866-70 (*Statistique Générale de France* figures) the

Nord advanced by only 26% as far as the rate for women was concerned, whereas the national average increased by 35.5%. In general terms, then, and taking the Department as a whole, the demographic and industrial expansion of the *Nord* served to hinder the development of literacy amongst both men and women.

The internal composition of this low Departmental performance also shows that there was remarkable continuity in the distribution of female literacy rates among the various districts. Each kept its pace, or very nearly, as if nothing had changed in the course of the century. The gap between the highest and lowest literacy rates — between the districts of Avesnes and Cambrai — had hardly changed, and was 28.5% instead of 31% (for men though the equivalent gap, in this case between Avesnes and Lille, had fallen from 29.7% to 19.6%). The two most backward districts in this respect in the 18th century had not shown the slightest interest in catching up, either in the case of Lille (+19.7%) or Cambrai (+18.7%). With the exception of Avesnes (which showed very high rates between 1750 and 1790), it was the two other districts which had shared the lead in the 18th century which now again saw the largest absolute increases, that is Dunkirk (+23.4%) and Hazebrouck (+23.9%). This would perhaps suggest that female literacy rates tended to be influenced more by local tradition than by any other factor.

III. *Literacy amongst the conscripts of 1878-80*

In contrast with 1827-9 these figures now show that considerable changes had occurred in the Department. The overall advance is quite plain to see, and amounted to 30.5%. The internal distribution was also, in comparison, completely upset. Hazebrouck had now taken the lead from the other districts, a fact which is far from easy to explain, although the cause may perhaps lie in the fact that the district was becoming de-industrialized and that its population was not increasing (149 inhabitants per Km² in 1832,

158 in 1872 and 162 in 1891) with the result that schooling facilities may have become more accessible (by 1840 Hazebrouck and Lille enjoyed the lowest rates of school attendance).

CONSCRIPTS ABLE AT LEAST TO READ (1878-1880)

	%		%
Hazebrouck	85.4	Douai	80.5
Dunkerque	85.2	Cambrai	77.1
Avesnes	83.1	Valenciennes	75.9
Lille	82.6		

Departmental average: 81.3%

In the district of Dunkirk industrial expansion had begun only in the 1860s and remained very localised, and the district continued to advance at a good rate and maintained its second position as in the previous century. On the other hand, Avesnes for the first time had to give up the leading position and fell to third place. It would seem that the decline was closely connected with the major changes that had occurred in the district's economic activities. After 1830 the traditional metal-working industries, which were highly specialized and essentially rural, began to decline rapidly as coke replaced wood and the local iron mines became exhausted, and they were replaced by two new large industrial centres: the textile industry which became established at Fourmies after 1823, and the heavy and refining industry in the Sambre valley around Maubeuge which was based on Belgian coal (the first coke blast-furnaces were built in 1829).

In the same period the district of Lille also moved up from the bottom of the list for the first time, and jumped into fourth place and showed an advance of 37 points over 1827-9, reaching a figure which was above the Departmental average. It seems that the modern industrial and urban transformation of French Flanders, an area which had previously been disorganized and uncared for, which contributed to its cultural backwardness, had from the mid-century created a double movement of economic and social

rationalization, and of cultural acceleration which enabled it to "assimilate" a sustained phase of demographic expansion. Between 1851 and 1891 the population density doubled (from 422 inhabitants per km² to 834). The rise in literacy was also very rapid, and constituted the greatest increase of all the seven districts over the position of 1827-9.

Now lying a long way behind Lille, the three great industrial centres brought up the rear. In comparison with 1827-9, the progress here was very modest - from 24% to 30%. Valenciennes, which after 1840 had become a centre for heavy metal industries as well as coal mining, had fallen back to bottom position. Cambrai in the penultimate, was stationary and it does not seem that the decline of her rural textile industries (from which Lille had profited) and of the small local industrial centres such as Le Cateau and Caudry, had helped the advance of literacy, due perhaps to the lack of local urban traditions.

The map of the distribution of literacy amongst the different cantons helps clarify certain local developments. First the consequences of recent industrialization in certain areas are clear. The canton of Dunkirk was particularly a theatre for the new industrial establishments, and it fell into a category of modest literacy rates. In the same way the canton of Trélon, on the East, in which Fourmies was situated, showed a marked decline. In the district of Hazebrouck, only the industrialized cantons dragged their feet, that is Hazebrouck itself and Bailleul, close to Armentières. In the region of Valenciennes, it was the two cantons to the south of the district centre and largely outside the coal-mining basin which had the highest literacy rates. Finally in the town of Lille itself the rates had advanced considerably in the urban cantons where industrialization was by now well established and traditional and where the problems of urbanization had also become less acute.

IV. *Literacy amongst conscripts in 1899-1904*

Finally between 1899 and 1904, in view of the level of literacy attained by the conscripts from the *Nord* as a whole (94.3% were

able to read at least), the differences between the districts became very small and are also difficult to analyse. However there were two separate groups.

CONSCRIPTS ABLE AT LEAST TO READ (1899-1904)

	%		%
Douai	96.8	Avesnes	92.6
Lille	95.7	Cambrai	91.2
Hazebrouck	95.3	Valenciennes	90.9
Dunkerque	95.2		

Departmental average: 94.3%

Four districts were above the Departmental average (even above 95%). Among these were the two districts of Lille and Douai which had progressed considerably since 1878-80 (by 13% and 16% respectively), and seem to have been able in these last years of the century to assimilate the consequences of the rough and sudden phase of industrialization and urbanization of the earlier decades and to have rediscovered the means of providing organized schooling in the urban environment. The two other leading districts were those of Hazebrouck, now firmly established near the top of the league, and Dunkirk which after a period of rapid industrialization and only very moderate increases in literacy (resulting in an increase of only 10%) now held fourth place.

In the bottom group there were a number of very different cases. In the first place there was the districts of Avesnes, where the absolute decrease in the rate of expansion had continued (+9%) at the same pace as the rise of heavy industry in the district, which now occupied fifth place. Cambrai and Valenciennes, on the other hand, although still behind had made very rapid progress. If we look at the cantonal distribution we find a sweep of very mediocre rates covering the Dunkirk region, and also the Sambre valley. On the other hand, the largest increases in the district of Douai were to be found in the cantons which were wholly or partly outside

the coal-mining basin, while those in the district of Cambrai were found in the cantons of the town itself.

* * *

How can these figures be used finally to explain what encouraged, and what held back the growth of literacy in the department of the Nord in the 19th century?

First one must ask whether the linguistic factor should be taken into account. Certain districts in the Department were almost exclusively Flemish speaking. This was so in Dunkirk and Hazebrouck, where until the mid-century Flemish was the accepted language in nearly every commune (French was spoken by everybody in only 10 out of 117). Even in 1862, 40 out of 61 communes in the district of Dunkirk, and 33 out of 56 in that of Hazebrouck, used only Flemish. Emile Coornaert¹² has also pointed out that, until 1833 at least, teaching in both town and country areas was done entirely in Flemish, and even during the Revolution the Jacobins themselves had not made any attempt to reduce the importance of Flemish. The attempts to ban Flemish date from much later, beginning in 1866 when Victor Duruy made the use of French alone obligatory in all schools.

The use of Flemish is generally invoked to explain the backwardness of primary education in the area. The report of one of the school Inspectors of the *Nord* on the state of primary education written in 1864 illustrates this.¹³ Reporting that the progress achieved in many of the communes was satisfactory, he carefully pointed out that this was despite the general use of Flemish. In order to overcome such handicaps, however, he suggested that the soundest remedy was to « appoint a solely French speaking head

¹² *Flamand et Français dans l'enseignement en Flandre française, des annexions au XXe siècle*, in « *Revue du Nord* » (Avril-Juin 1971, n. 209). On this see also: A. DE SAINT-LÉGER, *La Flandre Maritime et Dunkerque sous la domination française (1659-1789)*, Paris 1900; especially pp. 340 ff.

¹³ *État de l'instruction primaire en 1864*, Paris, 1866 (Tome I, p. 663).

teacher in the obstinate communes ». Another report by a schools Inspector, written in 1878 for the World Exhibition,¹⁴ noted the difficulties of teaching children in Flemish speaking communes. When a child first went to school he had to learn French in order to understand the master who was only permitted to speak to him in French, which caused lengthy delays in what was after all a fairly brief period of schooling. The same point was made by some of the respondents to the parliamentary inquiry of 1872 on working conditions in France¹⁵; a linen manufacturer from Bailleul, for example, who agreed that the level of education of his workers was poor, added in justification: « . . . their normal tongue is Flemish ».

The figures at our disposal, however, do not indicate any connection at all between the linguistic traditions of the two Fleming speaking districts and their literacy levels. The number of marriage deed signatures between 1750 and 1790 put Dunkirk in second place for both men and women, while Hazebrouck was third for women and sixth for men (and there was no linguistic influence apparent in the cantonal distribution). Again in terms of marriage signatures, Dunkirk and Hazebrouck were respectively in second and third position (for men and women) in 1866. The literacy rates among army conscripts were similarly unaffected by language. Between 1878 and 1880 the Flemish speaking districts in fact headed the lists, and in 1899-1904 they were still amongst the leading four. We can then discard the language issue as an explanation of the relative distribution of literacy in the districts of the *Nord*. It would also be useful if similar studies were to be made of other French departments which were not wholly French speaking.

Secondly it is also clear that density of settlement, or habitation, did not play any significant determinant role. In fact, it was the

¹⁴ *L'instruction primaire dans le département du Nord, 1868-1877, Rapport pour l'Exposition Universelle de 1878*, par E. ANTHOINE, Inspecteur d'Académie (Lille, 1878).

¹⁵ *Enquête parlementaire sur les conditions du travail en France*, Troisième Questionnaire, « Situation intellectuelle et morale » (Archives Nationales, C 3019).

district of Avesnes, the least densely inhabited of all, which before 1866 had by far the highest literacy rates. The district of Hazebrouck, where settlements were also very dispersed, was able to draw itself gradually into the the leading group. Should we conclude then that difficult communications and commercial contacts — a natural corollary of isolated settlements — constituted no obstacle to the growth of literacy? A single example is sufficient to suggest that this was the case. In the *Annuaire Statistique du Nord* of 1836, which contained a survey of the district of Avesnes, the isolation of the canton of Trélon was emphasized, in spite of « the improvements to the roads which formerly were impassable in winter », and it mentioned in particular the commune of Anor (2552 inhabitants) which was still « stuck in the mud of centuries ». But of the 461 marriages celebrated in Anor between 1750 and 1790, 336 grooms (72.9%) and 275 brides (59.6%) signed their deeds. This just about equalled the average for the district of Avesnes, and was much higher than the rest of the Department . . .

Thirdly we must consider the role of schools, which could be done by comparing the distribution of literacy rates with the distribution of schools in the Department. However the distribution of schools does not provide much of a solution. According to the survey conducted by the prefect Dieudonné,¹⁶ there were 568 schools for 671 communes in the Department of the *Nord* in 1804. But the district which had the largest concentration of schools was Hazebrouck, which at that time was bottom of the list for male literacy and third for women, while the district with least schools as Douai although it had only middling literacy rates for both men and women. The correlation between school attendance and literacy some decades later is also unclear. The percentages for school attendance in each district for the period 1831-43 are given below.¹⁷

¹⁶ *Statistique du Département du Nord*, par M. DIEUDONNÉ, préfet. Douai, An XII-1804 (3 vols.).

¹⁷ The figures are taken from MARYVONNE LEBLOND, *La Scolarisation au XIXème siècle dans le Nord* (Lille 1968). The rate of school attendance is obtained from the total number of children in primary schools in a given year, compared with the number of "schoolable" children for the same year (which, for reasons of statistical convenience, in fact means all children between 5 and 14 years).

SCHOOL ATTENDANCE 1831-1843

	%		%
Douai	740	Cambrai	514
Avesnes	730	Lille	433
Valenciennes	598	Hazebrouck	431
Dunkerque	544		

If these figures are compared with those for marriage signatures in 1866 (some twenty years later when many of these ex-pupils would have been marrying), both the similarities (Avesnes in the fore, and Lille at the rear, for example) and also the distortions (Hazebrouck and Douai) are noticeable. The development of school attendance in this short period is also interesting. In two districts, Lille and Hazebrouck, there is a clear increase in the percentages of school pupils between 1831 and 1843 (of 127 and 129 per thousand), and these two districts, which were backward as far as the 1750-90 marriage signatures and the literacy of the 1827-9 army conscripts were concerned, had by 1878-80 climbed to fourth and first position in terms of conscript literacy. On the other hand, there were three districts where school attendance was declining, and two out of the three (that is in Douai and Valenciennes - Dunkirk was the third) were at the bottom of the table.

It seems probable then that schools were a factor in the spread of literacy, but that in the periods and in the places where the demographic tide burst — that is in the different regions subject to the initial impact of massive industrialization — the school system proved quite inadequate and insufficient, even detrimental, for the development of literacy. Writing on Lille at the time of the Second Empire, Pierrard confirms this and in the « disagreeable and wretched schools » he detected « veritable reformatories little suited to attract the hesitant or the stubborn ».¹⁸

Fourthly we must then turn to the division which throughout the periods we have examined has separated the agricultural from

¹⁸ P. PIERRARD, *La vie ouvrière à Lille sous le Second Empire* (Paris, 1965).

the industrial areas, both between one district and another and within single districts. It was only by the end of the 19th century that the two districts which were both the most industrial and the most urban — Lille and Douai — had taken (or regained) the lead within the Department. The geographical and chronological spread of literacy seems to have been closely related to the different stages of industrial development. Since the 18th century the districts and cantons which had been subject to the most rapid and brutal impacts of industrialization suffered a slowing down in the growth of literacy rates in the following decades. All the 19th century surveys confirm this, and we need refer to only a single case, that of E. Vuillemin's survey in 1872 of the working people in the *Nord* - Pas de Calais coal basin.¹⁹ Using questionnaires completed by several mining companies, Vuillemin drew up a table of the literacy rates according to age groups, of 21,426 individuals over ten years of age who constituted the « mining community » accommodated in the houses of the different companies.

At roughly the same date (the census of 1866) there were the following percentages of those « able to read and write » for the

LITERACY RATES AMONGST THE WORKING CLASSE IN THE COAL-MINING
BASIN OF THE NORD-PAS DE CALAIS REGION (1871)
(those over 10 years able to read and write)

	Men %	Women %
10-20 years	48.7	47.3
20-30 years	52.4	41.9
30-40 years	49.0	32.4
40-50 years	40.6	24.0
50-60 years	43.4	20.8
over 60 years	47.3	36.6
Total	47.3	36.6

¹⁹ E. VUILLEMIN, *Enquête sur les habitations, les écoles et le degré d'instruction de la population ouvrière des mines de houille du Bassin du Nord et du Pas-de-Calais* (Arras, 1872).

whole population of the Nord aged over five years - 59.4% for males and 52.7% for females...²⁰

The national surveys into working conditions in the 19th century provide similar evidence. The replies to the parliamentary Inquiry of 1872²¹ show the huge proportion of illiterates amongst the textile workers and coal miners. The owner of a woollen mill at Fourmies replied that nearly all his workers were illiterate. The Anzin Coal Company estimated that only 50% of the working population over the age of ten was able to read and write. The director of the Douchy Mining Company confirmed that « despite the great sacrifices which this company has always made in the matter of education » about a third of the coal mining community was totally illiterate. The Douai Chamber of Commerce reckoned that over two thirds of the workers were illiterate, that of Valenciennes about a third, and the Cambrai Board of Health about seventenths. The Lille Chamber of Commerce declared that the workers' education was « virtually nil ». The 1866 census also shows that of the great towns in the Nord those with the largest working class population also had the lowest literacy rates: Halluin (21.1% « able to read and write » of those over the age of five), Denain (40.2%), Wattreloos (38.3%). Nor were the rural industrial zones any better placed; « the village workers are particularly lacking in instruction, and scarcely one in three knows how to read » was the reply of a Roubaix cloth manufacturer to the Inquiry of 1872.

²⁰ This should be compared with the pamphlet by F. CHAPPELLE, *Statistique de l'ignorance dans le Département de la Loire* (Saint-Etienne, 1870). The author described the literacy rates amongst conscripts from the Loire, canton by canton, for the years 1866, 1867 and 1868. He found that the two cantons with the highest numbers of illiterates — Saint-Etienne Nord-Est (32.6%) and Le Chambon (36.7%) — were those in which metal workers and miners predominated, while the cantons of Saint-Etienne Nord-Ouest and Sud-Est, where there were large number of ribbon-makers industry and gun-smits, had much higher literacy rates. He concluded that the mining industry in particular, « because of the opportunities of employment for children of all ages, excites the parents desire for gain beyond all measure » so that from the age of seven or eight boys and girls are employed to sort coal.

²¹ See Note 15.

There can be no doubt that the periods of initial and uncontrolled urbanization and industrialization dragged the schooling facilities down (as all other social facilities for that matter).²² This delay could on the whole be overcome, and it was the towns which had their own ancient traditions which were able to overcome it the most rapidly (Lille and Douai for example). On the other hand the widespread employment of children in industry, due to the need for labour and to the families' need for additional income,²³ prevented the development of education, be it in the family, the school or the church, for industrial employment kept the children busy all the year round. Agriculture, on the other hand, because of the constraints imposed by the seasons, was in fact less restrictive and during the poor months (from All Saints to Easter) school attendance was possible,²⁴ and many others ways of learning to read and write. In this way the rural regions tended to favour the spread of literacy,²⁵ although it is important to make exception of those regions, such

²² The lack of schools cannot in itself, however, be taken as a determining cause of illiteracy, for it was necessary not only that schools should exist but also that they should be fully used. That this was not always the case is shown by certain English examples. David Wardle (*Education and Society in Nineteenth Century Nottingham*, Cambridge 1971) notes that in Nottingham in the mid-19th century, in the midst of the industrial and demographic revolutions, the schools were largely empty despite the great efforts to develop the school system. The only exceptions to this were the "infant departments" which were in fact generally over-crowded as there was no possibility of employment for these very young children.

²³ In 1864 the Inspector of the *Académie du Nord* wrote: « In a county in which the shortage of labour has considerably increased wages it is difficult to prevent children entering the factories and workshops » (*État de l'Instruction primaire en 1864*, op. cit.).

²⁴ The 19th century statistics show that so far as that elementary cultural apprenticeship which we call literacy is concerned, attending a school — that is schooling, no matter how brief — was of much greater importance than the length of school attendance during a single year.

²⁵ « It is not the agricultural cantons which provide the highest numbers of illiterates, for no matter what happens, and even where there is the variety of production (found in this Department), agriculture allows certain intervals in which labour is slack; and the rest allowed by the bad season can be put to profit by attending school... » (*L'Instruction primaire dans le Département du Nord*, op. cit.).

as the Cambrai area, where agricultural labour was complemented by rural industries, for these normally put an end to the quiet season. The three districts of the *Nord* in which, in 1827-29, the literacy of the conscripts was the poorest and the numbers attending school in 1831 were the lowest, were: Lille, in first place, which was at the height of industrial expansion; second Cambrai and Hazebrouck where rural industry complemented agriculture.