Worker persistence, hiring policies, and the Depression in the aluminum sector: the Saguenay region Québec, 1925-1940

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This article examines changes in some demographic characteristics of the workforce at the Alcan plant in Arvida, Québec, from 1925 to 1939, and links those changes to the reduction in turnover rates observed during the same period. The transformation of the workforce is seen as evidence of greater selectivity in hiring by the employer and of choices made by workers.

Cet article traite de l'évolution de certaines caractéristiques démographiques des travailleurs des usines Alcan à Arvida, au Québec, de 1925 à 1939, reliant les changements observés à cet égard à la diminution du taux de roulement de la main-d'œuvre. Ce dernier phénomène témoigne à la fois de la réorientation de la politique d'embauche de l'entreprise et des choix des travailleurs.

I — Introduction

The turnover of labour constituted one of the most remarkable features of industrial production in North America at the turn of the century. The practice was characteristic of the early phases of industrialization; bosses laid off workers or reduced wages when demand slackened, and workers frequently quit to take up other jobs in the same city or elsewhere. The labour market was still considered to be made up of face-to-face dealings between employer and worker. Increasingly, however, larger firms recognized the costs associated with this practice: the hiring and training of new workers detracted

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from the efficiency of the firm and constituted a particularly heavy burden in times of expansion, when labour was scarcer, thus driving costs even higher.[1]

The problem was particularly acute in heavy industries, such as steel-making, metal-working and refining, where working conditions were harsh. Heat exhaustion, noise and chemical contamination made work in these industries particularly unpleasant. Employers resorted to various kinds of measures to reduce this turnover; collectively, these measures became known as "welfare capitalism".[2] They included a more systematic hiring policy, implemented by professionals rather than by foremen, as well as pension plans, bonuses linked to persistence and amenities outside the work area, such as libraries and playgrounds. The town of Pullman was a leading example of this experiment.[3]

The welfare capitalism movement spread unevenly across the industrial landscape. Generally, it was more prominently featured in the larger concerns, where the size of the manpower made its implementation practical. In the US, the steel industry was on the forefront of the movement.[4] Canadian steel producers adopted the practices of their American counterparts and put in place an impressive array of measures, the success of which remains debatable, in view of a replacement rate of 91 percent in the 1920s.[5]

Little is known about another North American heavy industry, aluminium. Yet aluminium was an emerging industry with a remarkable growth record. US output went from less than 6 million pounds in 1901 to 138 million pounds in 1920 and 229 million pounds in 1930. In Canada, production began in 1902, reached 10 million pounds in 1912, 22 million pounds in 1920 and peaked at close to 83 million pounds in 1927. At that time, Canadian

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1. For contemporary studies, *see* Sumner Huber Slichter, *The Turnover of Factory Labor* (New York, 1919) and Paul Frederick Brissenden and Emil Frankel, *Labor Turnover in Industry: A Statistical Analysis* (New York, 1922). Sanford M. Jacoby, *Employing Bureaucracy: Managers, Unions, and the Transformation of Work in American Industry, 1900-1945* (New York, 1985) relates the uneven progress of the emergence of personnel departments and more systematic recruitment policies in the 1920s. Richard J. Jensen, "The Causes and Cures of Unemployment in the Great Depression," *Journal of Interdisciplinary History*, 19, 4 (Spring 1989), pp. 553-583, credits the new manpower selection methods and the practice of offering higher wages to keep more stable and more productive workers with creating a class of less desirable workers who constituted the hard-core unemployed during the Depression.

2. *See* Stuart D. Brandes, *American Welfare Capitalism* (Chicago, 1976).

3. *See* Stanley Buder, *Pullman: An Experiment in Industrial Order and Community Planning* (New York, 1967).

4. Katherine Stone, "The origins of job structures in the steel industry", *Review of Radical Political Economics*, 6 (1974), pp. 113-173.

5. Craig Heron, *Working in Steel: The Early Years in Canada* (Toronto, 1988), pp. 99-111.

production was half the US level. The expansion of capacity in the twenties more than doubled Canadian output.[6]

Manpower management in the industry was shaped both by its monopolistic character and by locational imperatives. Before World War II, the aluminium sector was made up of one firm: the Aluminum Company of America (Alcoa).[7] Its Canadian affiliate, Alcan, was the only producer north of the boundary.[8] Production methods were therefore very likely the same in the two countries: most of the personnel who set up the Canadian plants and ran them came from the US. Recruitment conditions, however, were different. In the US, the Alcoa plants were located at Niagara Falls (NY), Massena (NY) and East St. Louis (IL), areas where the potential labour pool was large. In Canada, aluminium smelters were located near hydro-electric power developments in remote regions of the province of Québec, where the potential labour pool appears at first glance to have been much smaller.

This study examines some of the determinants of worker persistence in the Canadian aluminium industry in the pre-World War II period. It focuses on the Arvida works in the Saguenay region of Québec, which accounted for 25 percent of total North American production by 1939. The study seeks to unravel the company's changing manpower practices and the workers' shifting persistence patterns from the chaotic early years through the Depression and the recovery of the late thirties by an examination of some of the personal and professional characteristics of the workers. The study ends with World War II, which opened a different chapter in the history of Arvida, as the gearing up of production and the construction of new power dams transformed the scale of Alcan's operations.

The sources for this study are both qualitative and quantitative. The qualitative evidence is scarce: it consists of a diary of the company's activity in the region, memoirs written by company managers, and a few newspaper accounts. But these few traditional sources are compensated to a degree by the availability of the company's personnel records. The personnel records of the Arvida works provide fairly extensive data on workers' background as well as information on job assignment, wage levels and reasons for the termination of employment. For the period from 1925 to 1940, the personnel records appear

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6. George W. Stocking and Myron W. Watkins, *Cartels in Action: Case Studies in International Business Diplomacy* (New York, 1946), pp. 236-237.

7. *See* Donald H. Wallace, *Market Control in the Aluminum Industry* (Cambridge, 1937). For a history of Alcoa, *see* Charles C. Carr, *ALCOA: An American Enterprise* (New York, 1952).

8. On the early years of Alcan, *see* Duncan Campbell, *Mission mondiale : histoire d'Alcan*, vol. 1 (n.p., 1985).

to be quite complete.[9] A quantitative analysis of these records can shed some light on turnover and on evolving recruitment practices.

There are of course individual and familial circumstances which affected persistence other than those examined here. The links between the family and professional origins and the demographic behaviour of Saguenay-born Alcan workers and their relationship to their occupational behaviour will constitute the next phase of analysis. But the results presented here are an essential preamble to further analysis and provide some insight into the constraints affecting workers and the choices they made.

The sheer number of occupational titles found in the records requires some classification. Job titles were standardized and assigned to categories that reflect the broad areas of plant activity in the Arvida complex.[10] The categories are:

1. Construction and maintenance. This category includes skilled construction workers, such as electricians, plumbers, blacksmiths and carpenters, as well as those day labourers whose tasks were identified as linked with construction work. Construction workers were assigned to the town site as well as to the plant site. The category also includes maintenance workers, since it is not possible to distinguish between construction and maintenance work. Many workers did both types of work.

2. Raw material transformation. This category refers to all work related to the making of alumina from bauxite as well as to work related to the making of carbon electrodes used in the electrolytic process.

3. Aluminium production. This category encompasses work done in the potrooms, from potman to carbon changer and helper.

4. Administration. This category comprises managerial functions as well as office personnel.

5. Support staff. This category is made up of job titles not directly related to production, such as policeman, doctor, company newspaper editor as well as chambermaids, nurses, busboys and dishwashers working in company camps or housing.

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9. All of the individual files opened from 1925 to the end of 1939 were used in this study. They include almost all workers who were hired, including a few who left the day they were hired. A very small number of workers mentioned in other sources — a chronology of events kept by the company, memoirs of key personnel, or the assessment rolls for Arvida — are not found in the personnel records. In some cases, the reason is that the Alcan records were separate from those of Saguenay Power, its utility company, which was not included in this study.

10. This classification was resorted to because the changing organizational structure of the Arvida works rendered a consistent classification scheme based on company practice impossible. The classification of job titles used here was developed with the help of present-day Arvida personnel managers.

6. Transportation and shipping. This category includes crane operators, truck and locomotive drivers, railway maintenance crews and shippers.
7. Unspecified. This refers essentially to day labourers whose tasks are undefined.
8. Unclassified. A residual category including a few job titles that were too imprecise to be classified under the preceding headings and others, the meaning of which was unclear.

II — Alcan's activities in Arvida, 1925-1940

Technical constraints rather than manpower considerations dictated the location of the Arvida plant. These technical constraints have to do with the production process itself, access to raw materials and access to shipping facilities. Aluminium is produced by electrolysis of alumina. The electrolytic process consumes large amounts of electric power, the cost of which becomes therefore a prime component of the total cost of production. In the 1920s, when techniques for the long-distance transportation of electricity were still primitive, aluminium plants were located close to their power source.

The availability of hydro power was a major factor in Alcoa's decision to expand its activities into Canada. It came to the St. Maurice region of Québec in 1899 because of the development of the hydro potential of the St. Maurice River. The Saguenay works were built in 1925 as a result of a merger between Alcoa and the large hydro interests held in the region by James B. Duke, the US tobacco king.[11] The 1925 merger brought under Alcoa's control the enormous hydro potential of the Saguenay River, which far surpassed what it could use in the foreseeable future.

The Saguenay River also provided Alcan with a deep sea port at Baie-des-Ha!Ha!. Besides the shipping of aluminium for export, this Saguenay River port allowed the importation of bauxite, the ore from which alumina is derived, from deposits in the West Indies. Access to ocean shipping therefore made it possible to operate an ore reduction plant as well as a smelter in Arvida. A third plant was also built to produce the large quantities of carbon electrodes required in the electrolytic process. Thus the Saguenay works comprised three main plants, as well as lesser facilities.

The works were located close to an undeveloped hydro site on the Saguenay River, about half way between the cities of Chicoutimi and Jonquière. Alcoa intended to develop this site, known as Chute-à-Caron, to

11. *See* José E. Igartua, "'Corporate' strategy and locational decision-making: the Duke-Price Alcoa Merger, 1925", *Journal of Canadian Studies/Revue d'études canadiennes*, 20, 3 (Autumn 1985), pp. 82-101.

supply the works' power; construction of a power dam began at once.[12] Alcoa erected a small town next to the works to house its workers. Thus was born, in 1925, the community of Arvida, named after Alcoa's president, Arthur Vining Davis. Construction of the plant and of the town proceeded at once, and aluminium production started in 1926. The first phase of the town plan was completed by 1928, the year Alcan was set up as a separate entity to take over Alcoa's Canadian operations.[13]

The recruitment of manpower was not an issue when location of the Saguenay works was determined. The Alcoa engineer, who first surveyed the area to locate a plant site and to provide a rough estimate of input costs, spent a single sentence of his report on the issue, believing that "plant labour on an operating basis would be plentiful and cheap."[14] Other large projects in the area seemed to find manpower readily enough. The construction of a large dam and power house at Île Maligne, at the head of the Saguenay, from 1923 to 1924, had drawn large numbers of migrant construction workers.[15] Pulp mills in Kenogami and Jonquière obtained most of their manpower from the local population. But operating the plants at Arvida by hiring anyone who showed up at the plant gate would not be very efficient: in the first years, turnover was considerable.

The availability of work is one of the prime determinants of turnover.[16] It is therefore necessary to give a brief outline of the evolution of Alcan's activities from the first days of 1925 to the outbreak of World War II. These fifteen years comprise three different phases. The first is the construction period, from 1925 until September 1928, when the new corporate entity, Alcan, took over the works, cancelled all construction work not yet underway and started to reduce manpower to the level required for production only. During this period, four potrooms were built, the last of which began production in 1927. Besides the potrooms, the alumina plant, and the electrode plant, a wire plant, a remelt plant, a boiler plant, sheds, warehouses, offices and the plant rail lines were also built.[17] Work also continued on the town site to provide houses, roads and services.

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12. The aluminium plant was completed before the dam, and power was obtained from the Île Maligne power plant, about fifteen miles upriver. The plant belonged to the Duke-Price Power Company, which was absorbed into Alcoa, in 1926, after Duke's death.

13. Campbell, *Mission mondiale*, pp. 233-237.

14. The report is reproduced in United States District Court, Southern District of New York, Equity n° 85-73, United States vs. Aluminum Company of America *et al.*, Exhibit 258, p. 1,830. (This is the 1937 Alcoa anti-trust suit; page numbers refer to the printed volumes, not to the stenographic pages.)

15. Raoul Blanchard, *L'Est du Canada français : « Province de Québec »* (Montréal, 1935), pp. 100-106.

16. *See* James L. Price, *The Study of Turnover* (Ames, Iowa, 1977), p. 29.

17. The details are taken from a chronology of operations kept by the company. *See* Société historique du Saguenay, Fonds Alcan, "Newspaper Items", which contains the chronology.

During the second phase, from 1928 to 1935, the level of activity fluctuated noticeably. Production began to decline even before the Depression. Shortages in power forced the closing of one potroom in 1928. A second potroom was closed for six months in 1929, but both were back in service by the end of 1930. The Depression brought a reduction in the level of production in the four potrooms as well as a reduction in the duration of each shift from eight to six hours, to stretch out available work. The ore plant was closed, as the "dry ore" process of making alumina was not economically viable; alumina was then imported from Alcoa's East St. Louis plant. The carbon plant was also closed. In the spring of 1932, production levels hit their lowest mark. Three of the four potrooms were closed. The work force was estimated at less than 300 workers. The signature of a contract with Japan for 3.5 million pounds of aluminium, in September 1932, brought about a brief upswing in production. Two potrooms were put back in service and the carbon plant resumed production. Shifts were brought back to eight hours. But further curtailments of production were imposed in early 1933 in order to keep within the production allotments established by the international aluminium cartel. Only two potrooms remained open, and they produced at a reduced capacity.

The last phase, from 1935 to 1940, was marked by recovery and by some expansion of the Arvida facilities. The conversion of the alumina plant to the Bayer process (chemical and heat purification) was undertaken in 1935 and gave work to up to 300 men. The refurbished plant was expanded and brought on line in 1937, at which time all four potrooms were operating at capacity. Two new potrooms as well as a small fluoride plant were built and put into operation by June 1938.

The available production figures indicate how dramatic the turnaround was. In 1934, some 34 million pounds of aluminium were produced at Arvida. By 1937, the figure had reached 64 million pounds, and by the end of 1939, it had climbed to 123 million pounds. This represented 75 percent of Canadian production and 25 percent of total North American production.[18]

The size of the work force fluctuated with the level of work production (Table 1). Hiring for construction and production produced a peak in 1926, when close to 3,000 workers were hired. In 1927, more people left than were hired and in 1928, twice as many workers left as were hired. Altogether, the first three years account for two thirds of all hirings and close to 60 percent of departures, between 1925 and 1940. Hirings and departures slowed to a trickle by 1933, and then resumed to reach new peaks in 1937 and 1938, respectively. From 1934 on, hirings were more numerous than departures, except for 1938, when the second phase of construction ended. This resulted in a total manpower, which declined steadily from 1926 to 1933, and then increased markedly in 1935, 1937 and 1939.

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18. Arvida production figures are from the chronology. North American production is given in Stocking and Watkins, *Cartels in Action*, p. 237.

Table 1 **Hirings and departures, Alcan works, Arvida, 1925-1939**

Year	Hirings	Departures	Difference	N at end of year
1925	238[a]	4	234	234
1926	2869	1443	1426	1660
1927	1123	1374	-251	1409
1928	396	869	-473	936
1929	165	240	-75	861
1930	133	179	-46	815
1931	41	103	-62	753
1932	56	88	-32	721
1933	20	21	-1	720
1934	65	20	45	765
1935	297	102	195	960
1936	181	108	73	1033
1937	520	157	363	1396
1938	146	161	-15	1381
1939	197	85	112	1493
Total	6447	4954		

[a]Includes three workers transferred from Shawinigan whose hiring date is given as before 1925.

Source: Alcan, Arvida, personnel records.

III — The first wave of workers, 1925-1928

No accounts have been found of how hiring was conducted during the first years of the Arvida operation. According to case histories of workers who stayed with the company twenty-five years, some came as part of a family, while others were migrant workers who came to Arvida upon learning of the opening of the construction site.[19] No traces of specific recruitment efforts have been found. Employee records can however shed some light on how the company chose its workers. These records indicate that little attention was paid to what kind of worker was hired.

The personnel officers did not bother to record previous employment or the name of the previous employer on over 90 percent of the job application forms filled between 1925 and 1927. The occupations that were recorded range from "works foreman" to "on relief", and only a handful of occupations accounted for more than ten mentions. Similarly, most workers received an "A" on physical rating, apparently without any physical examination.

The ethnic origin of workers was reported under the heading of "nationality". The data appear quite reliable. The personnel officers sometimes listed as French Canadians persons whose surname had other ethnic roots, but additional information in the personnel record indicates that they were indeed born or raised as French Canadians.

19. See *Le lingot*, the Arvida plant newspaper, 1950-1952, *passim*.

As Table 2 shows, French Canadians made up barely half of all workers hired between 1925 and the end of 1927. The next largest group were other Canadians, with 16 percent. Thus Canadian citizens made up two thirds of the manpower. Foreign-born workers from Western Europe and from Eastern Europe account for 18 percent and 13 percent respectively. Half of the Western Europeans were Finnish. The next largest group were the Czechs, with close to 5 percent of the total. Polish, Irish and Italian workers were each less than 2 percent of the workforce. Altogether, apart from the Canadians (French and English), there were 36 nationalities represented in Arvida during the early years.

Table 2 Proportions of French Canadians among Alcan workers hired, Arvida, 1925-1939

Year	Total	French Canadians		French Canadians, area of origin known			Percentage of Saguenay workers among all French-Canadian workers
		N	%	Total N	Saguenay N	workers %	(5)/(1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1925	238	92	38.7	77	47	61.0	19.8
1926	2869	1463	51.0	1335	493	36.9	17.2
1927	1123	593	52.8	506	249	49.2	22.2
1928	396	179	45.2	147	90	61.2	22.7
1929	165	85	51.5	68	54	79.4	32.7
1930	133	73	54.9	59	48	81.4	36.1
1931	41	26	63.4	19	16	84.2	39.0
1932	56	34	60.7	30	27	90.0	48.2
1933	20	10	50.0	6	5	83.3	25.0
1934	65	50	76.9	36	36	100.0	55.4
1935	297	221	74.4	185	171	92.4	57.6
1936	181	142	78.5	118	109	92.4	60.2
1937	520	427	82.1	383	326	85.1	62.7
1938	146	90	61.6	71	57	80.3	39.0
1939	197	140	71.1	116	105	90.5	53.3
Total	6447	3625		3156	1833		

Source: Alcan, Arvida, personnel records.

Within the French-Canadian contingent, the low proportion of Saguenay workers is striking: they numbered only 41 percent of the French Canadians hired during those years.[20] Overall, Saguenay workers represented less than 20 percent of all workers hired. This seems quite surprising, given the ethnic homogeneity of the Saguenay region (over 95 percent French-Canadian) and the remoteness of the region from the main migration routes. Foreign workers

20. For most French Canadians, one can infer geographic origin from information given on home address and the address of the person to notify in case of sickness or injury.

had been in the region, working on construction sites, for a few years. Raoul Blanchard, the French geographer who visited the Saguenay in 1932 as part of the field work for his pioneering study of the economic geography of French Canada, reported that large numbers of itinerant workers of foreign origin came to work at Arvida after working at the Île Maligne power dam and the Price Brothers Riverbend paper plant, which were built between 1923 and 1925.[21]

Given the overwhelmingly French-Canadian character of Saguenay society, the presence of a large contingent of non-French-Canadian workers at Arvida made ethnicity a particularly noticeable attribute. In the local context, non-French-Canadian workers would be perceived as "foreign" by Saguenay residents. Since these "foreign" workers were apparently drawn to the Saguenay as "floaters", one would expect that they would differ from French-Canadian workers in terms of marital status. It is therefore striking that there were few differences of marital status between French-Canadian workers and the others. Each group was evenly split between single workers and married ones. Only among the few widowers (3 percent of the total) were the French Canadians over-represented. The fact that half the French-Canadian workers were single is an indication that a good portion of the workforce had a fairly high potential for mobility.

Ethnicity and marital status were the two most obvious characteristics of workers upon which the employer might have based a selection. But there were also slight differences in the type of work being offered to French-Canadian workers and workers of other ethnic origins. Forty-six percent of the French-Canadian workers were assigned to construction or maintenance work, against only 33 percent of foreign workers (Table 3). The ratios are inverted for common labourers, with over half of the foreign workers being assigned such work against 37 percent for French Canadians. Overall, over 80 percent of both groups wound up in construction or day labour: there was, therefore, little difference between the two ethnic categories in those areas which accounted for the bulk of the hirings.

French-Canadian workers were, however, over-represented in aluminium production, support staff and transport work areas. In aluminium production, where French Canadians were the most numerous in relative terms, over a third of the workers were foreigners, still a large proportion given the local context. French Canadians were least numerous in the administrative group, largely made up of English-speaking Canadians and Americans from other Alcoa plants. These figures are only a rough indication of the propensity of each ethnic category to be assigned work in particular areas, since workers were frequently assigned to other tasks after they were hired.

The breakdown of marital status by work sector reveals that married workers were a majority in the construction and maintenance sector and in the

21. Blanchard, *L'Est du Canada français*, pp. 105-106.

raw material transformation sector, with close to 60 percent of all workers in these categories. Inversely, single workers made up about the same proportion of labourers. This probably indicates that fewer labourers had the means to support a family than the tradesmen in construction and maintenance. The strongest proportion of single workers was found among the administrative and support staff workers. This was where female workers were concentrated: in these categories, only 2 female workers — a charwoman and a stenographer — were married, against 31 single females.

Table 3 **Type of work assigned upon hiring, by ethnic origin, Alcan workers hired before 1928, Arvida**

Type of work	French Canadians N	%	Other workers N	%	Total N	%
Construction and maintenance	978	59.8	657	40.2	1635	39.7
Raw material transformation	11	44.0	14	56.0	25	0.6
Aluminum production	109	64.5	60	35.5	169	4.1
Administration	31	29.0	767	1.0	107	2.6
Support staff	67	60.4	44	39.6	111	2.7
Transportation and shipping	135	67.2	66	32.8	201	4.9
Unspecified	777	41.5	1095	58.5	1872	45.4
Total[a]	2108	51.2	2012	48.8	4120	100.0

[a]Excludes unclassified and missing.

Source: Alcan, Arvida, personnel records.

These breakdowns indicate that the company did little to select a homogeneous workforce. The major feature is the over-representation of foreign workers as day labourers and that of French Canadians in construction and maintenance work. But since both of these categories were bound to suffer a quick decline in importance after construction was ended, these distinctions tell very little about the selection of workers for production work. A look at some of the determinants of persistence will provide a clearer picture.

Determinants of persistence

A multiple classification analysis of the measurable determinants of persistence available in the personnel records — ethnicity, marital status and area of work assigned at hiring — shows that these characteristics account for a small but statistically significant amount of the total variance in persistence (Table 4). But multiple classification analysis also gives an indication of the

specific effect of each factor, statistically eliminating interference from the others and ranks factors in order of relative importance. This allows for a clearer analysis of measurable factors.

Table 4 Persistence by marital status, ethnic origin, and type of work, Alcan workers hired, Arvida, 1925-1927

Multiple classification analysis

Grand mean = 1073.99 days

	N	Deviation Unadjusted		Adjusted for independents	
			Eta		Beta
Marital status					
Single	2030	-429.15		-385.19	
Married	1930	464.85		415.38	
Widowed	120	-209.15		-157.45	
Divorced	1	-900.99		-842.90	
			.18		.16
Ethnic and geographic origin					
Saguenay	764	625.86		462.47	
Other French-Canadian	1325	-199.80		-123.82	
Other	1992	-107.14		-95.01	
			.12		.09
Type of work					
Construction and maintenance	1617	157.98		36.92	
Raw material transformation	25	691.65		727.10	
Aluminum production	166	1070.65		1120.47	
Administration	103	926.53		1089.11	
Support staff	106	-499.10		-297.94	
Transportation and shipping	199	-22.27		-204.37	
Unspecified	1865	-261.96		-162.89	
			.14		.13
Multiple R					.236
Multiple R^2					.056

Source: Alcan, Arvida, personnel records.

Of the three determinants used in the analysis, marital status was the strongest. Average duration of work was slightly less than three years, but close to two thirds of all workers hired were gone in less than a year (Table 5). Married workers stayed on the job about twice as long as single workers. Next in importance was the type of work assigned upon hiring. Construction and maintenance workers tended to stay with the company a bit longer than the general mean of slightly less than three years, while the day labourers' stay was a little shorter. Larger variations are evidenced in the production,

administrative and support staff categories: in the first two categories, workers tended to stay with Alcan about six years, while the support staff left after two.

Table 5 **Persistence breakdown, Alcan workers, Arvida, 1925-1939**

	Hired in 1925-1927		Hired in 1928-1939	
Persistence	N	%	N	%
0 - 1 year	2690	63.6	876	39.4
1 - 2 years	589	13.9	135	6.1
2 - 3 years	260	6.2	91	4.1
3 - 4 years	90	2.1	81	3.6
4 - 5 years	63	1.5	80	3.6
(1 - 5 years	1002	23.7	387	17.4)
5 - 10 years	91	2.2	402	18.1
10 - 15 years	84	2.0	245	11.0
15 - 20 years	145	3.4	133	6.0
Over 20 years	218	5.1	180	8.1
(Over 5 years	538	12.7	960	43.2)
Total	4230	100.0	2223	100.0

Source: Alcan, Arvida, personnel records.

Ethnicity as such made almost no difference in the duration of employment. This is surprising, as one would expect French-Canadian workers, more at ease in the social milieu of the Saguenay, to feel fewer pressures to leave. Geographic origin was more of a determinant: workers from the Saguenay exhibited a higher than average persistence, followed by non-French Canadians and then by French Canadians from other regions than the Saguenay.

A multiple classification analysis focusing on the determinants of persistence among French-Canadian workers shows that geographic origin was the most important determinant. Workers from the Saguenay stayed at Alcan for an average of four years, compared to an overall mean of 2.75 years. Workers from Montréal (20 percent) or Quebec City (3 percent) lasted less than a year. Workers from other areas also left more quickly than the average.

Type of employment and marital status also affected the persistence of French-Canadian workers. Those in administrative functions and in aluminium production, with the better paid jobs, stayed the longest, with averages of six and four and a half years. Married workers stayed on about twice as long as single ones, or three and a half years against 21 months.

Workers who left

Three quarters of all workers hired between 1925 and the end of 1927 left the company within two years. If we shift the analysis from the whole cohort of workers hired between 1925 and 1928 to only those who left within two years, we obtain some indications of the nature of the turnover problem, indications which are corroborated by the motives for separation recorded on employee files. On average, workers who left within two years lasted only about six months. This high rate of turnover would appear at first glance to reflect the relative importance of construction workers in the cohort. Construction and maintenance workers accounted for 39 percent of hirings; common labourers, who were most probably assigned construction duties, account for another 44 percent. Thus over 80 percent of the manpower hired may have been assigned to construction work. But in fact, construction workers were not over-represented among the workers who left within two years: rather, their proportion among those who were hired (82.9 percent) was very close to their proportion among those who left within two years (84.7 percent). Put another way, 79 percent of those who were hired as construction workers or common labourers left within two years. But support staff workers, a category which includes the cooks, waiters and dishwashers working in the temporary camps that housed the workforce, left even more quickly: 83 percent of them left within two years. Workers in other areas were only slightly slower to leave. Seventy-eight percent of workers in transportation and shipping left within two years; for workers in raw material transformation, the rate was 64 percent; for those in aluminium production, the rate was 63 percent; even in administration, 56 percent left within two years. The high rate of turnover that affected all areas of work at the Arvida works is silent testimony, among other things, to the absence of efficient manpower recruitment practices during these early years.

When workers who left within two years are grouped by area of work at the time of their departure, rather than at the time of their hiring, much the same picture emerges. But the internal mobility of labour — the frequency of transfers among different work areas — also becomes apparent. Common labourers, who made up 47 percent of those hired in the early years, only account for 37 percent of the separations. Close to 300 of the workers hired as common labourers and who left within two years were transferred to other sectors before leaving. Of course, the sector which receives the largest number of transfers is that of aluminium production, since few workers were assigned to it immediately upon hiring. While 106 workers were assigned to aluminium production upon hiring, 189 were in that area when they left. More than two thirds of the 116 workers who left within two years as potmen were originally hired as common workers or as construction and maintenance workers. But there were also numerous transfers from aluminium production to other sectors. Of the 82 workers hired as potmen (whose primary task was to oversee the electrolysis of aluminium in the pots), 47 left within two years and only 32 of them were still potmen at the time of their separation. These figures indicate

that an internal high turnover rate was also in evidence for jobs related to aluminium production; they provide a rough indication of the workers' distaste for those jobs.

As has been seen earlier, marital status and ethnicity on the whole had little effect on shaping the group of departing workers. These were slightly more likely to be single (54 percent as against 49 percent of all those hired). They were also evenly divided between French Canadians and others, as they were on hiring. In fact, among those who left within two years, the average stay of French Canadians was shorter than for other workers (0.43 years versus 0.50 years). However, in some work areas, ethnic differences were more pronounced. French Canadians made up 51 percent of those hired in aluminium production, but they accounted for 65 percent of those in that type of work when they left. Similarly, French Canadians made up a greater proportion of workers in support staff positions at separation than at hiring (40 versus 60 percent). French Canadians thus did not seem to tolerate that type of work as well as workers from other ethnic origins. It may also have been easier for them to find employment alternatives in the region or in the province.[22]

Reasons invoked at separation are also indicative of the lack of a well-defined employment strategy on Alcan's part. When workers left Alcan, the personnel office wrote a final entry on their service record, indicating whether the worker was fired, laid off, or whether he quit.[23] As well, in a third of the separations taking place in 1926, 1927 and 1928, the worker's service record reports a reason for the separation. These data offer some indications of the circumstances of worker separation. The group of workers for which this information is available shared to a remarkable degree the characteristics of the whole group of transient workers: it had a slight over-representation of French Canadians (54 percent against 50 percent for the whole group), of married persons (45 percent against 42), and of workers in aluminium production (11 versus 6 percent), but was otherwise similar to the whole group. The evidence drawn from this segment of the whole group would thus seem representative.

In over half (57 percent) of the separations for which motives are given, workers quit by choice. This was a widespread phenomenon in the US as well as in Canada.[24] Company-initiated separations represent another 28 percent of departures, while 15 percent are due to miscellaneous reasons, such as

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22. Here too, the difference between Saguenay workers and other French Canadians is striking, the Saguenay workers having much greater persistence, while other French Canadians, particularly those from Montréal, have a much lower persistence rate. Again, there may have been a differential in the knowledge of the labour market and less reticence on the part of workers not from the region to seek work elsewhere.

23. There were 2 women hired as cleaners in the construction camps, 10 in administrative positions and 28 in support staff jobs before 1928. They are included in the analysis.

24. Brissenden and Frankel, *Labor Turnover in Industry*, p. 79; Heron, *Working in Steel*, pp. 78-82.

sickness in the family. Those workers who left by choice (with or without prior notice) usually departed without giving a reason. Very few left citing the work they were asked to do at Alcan as the reason for leaving, and fewer still mentioned a new job. Most of those who gave the nature of work done at Alcan as a reason for leaving (14 out of 23) were in aluminium production, where conditions where especially harsh. Company-initiated dismissals, in 1926 and 1927, were primarily for disciplinary reasons (45 percent),[25] then for lack of work (29 percent) or for reasons related to the worker's capacity to do the work (22 percent). In 1928, with the end of construction, curtailment of operations was the most frequently cited reason.[26]

During Arvida's first years of operation, Alcan did not exhibit any preferences in the type of worker it hired. Foreign workers were taken on almost as often as French-Canadian workers. Most of its manpower went to construction work, and workers in that area were mostly gone by the end of 1928. But workers in other areas of work also exhibited a high degree of transiency. Workers in aluminium production, especially, had high internal mobility. This is understandable given the very harsh nature of the work involved. Yet, overall, transiency was widespread among all ethnic groups and marital categories. The most significant aspect of transiency at Arvida was that it was a decision made by the worker, who obviously did not find the kind of work place he had envisioned. A much smaller number of workers were dismissed because the company found them unacceptable.

Thus a dual process of self-selection and company-initiated filtering winnowed the ranks of the workforce from the 4,600 workers which had been hired to the 1,000 remaining at the beginning of 1929. Alcan suffered from a common ailment of large-scale industry. Slichter reported that "the steel industry, power plants, forge shops, aluminium reduction, the enameled ware industry, all have numerous jobs in which exposure to great heat is inevitable and report difficulty in holding help on that account."[27] But, as has been seen, high turnover affected all areas of operations, not just the potrooms. It resulted from a lack of attention in the selection of workers. But the situation soon changed.

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25. The denominator used in computing this proportion is the number of separations for which a reason was given. In fact, the proportion of dismissals for disciplinary reasons over all separations is probably smaller, since the company had every reason to note such dismissals on its records, in case a worker reapplied for work. A number of records contain the phrase "not to be re-hired", sometimes with "under any circumstances" added for emphasis.

26. *See* José E. Igartua, « La mobilité professionnelle des travailleurs de l'aluminium à Arvida, 1925-1940 », *Labour/Le travail*, 20 (1987), pp. 33-60.

27. Slichter, *The Turnover of Factory Labor*, p. 74.

IV — Changes in hiring policy, 1928-1940

In July 1928, Alcoa's General Superintendant in Arvida told a visiting delegation of Chicoutimi's city council that the exaggerated publicity surrounding the creation of Arvida in 1925 (according to which the city would instantly reach 50,000 inhabitants) resulted in drawing to the new town "wanderers who cannot keep a job anywhere. Some of these people expected to earn here wages of $10,000 a year without any skills. Fortunately, this invasion has stopped and we were soon able to deal with reasonable people anxious to work."[28] With hindsight and statistics, one can see that married French-Canadian workers from the Saguenay had the most likelihood of long employment. Alcan's personnel managers came to perceive the same thing, for hiring became more selective from 1928 on. Increases in the proportions of French Canadians, in the proportions of workers from the Saguenay, and in the proportion of married workers hired during those years attest to the change in policy.[29]

The proportion of Saguenay workers among all those hired rose rapidly, from a third in 1929 to a peak of three quarters in 1935, from which their proportion fell gradually to 1939 (Table 2). They comprised a growing proportion of French-Canadian workers hired during those years, who themselves made up two thirds of all workers hired. The preference given to French-Canadian workers, and to Saguenay workers in particular, is noticeably stronger from 1934 onwards, even during the construction periods of 1935 and 1937. This preference resulted in an increase in the proportion of French Canadians in the Alcan workforce from 53 percent on 1 January 1929 to 71 percent ten years later.

Pressures to be more selective in the recruitment of workers came both from the region and from upper management. As early as 1928, a letter to the regional newspaper complained of preference being given to "foreigners" (by which was meant non-French Canadians) in hiring in the region.[30] During the Depression, the Saguenay was one of the worst hit areas in the province of Québec. Raoul Blanchard, the French geographer, noted during his visit in 1932 that the "counties of Lake St. John and of Chicoutimi are, with Montréal, the most suffering in the province, those where unemployment is the highest.[31] In 1935, an estimated two thirds of the population of Chicoutimi, the regional

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28. *Le Progrès du Saguenay*, 31 July 1928.

29. In theory, these changes could simply reflect changes in the composition of the labour pool from which Alcan drew. This is impossible to assess with certainty, but there are no obvious reasons why the labour pool would become more homogeneous after 1927. On the contrary, one would expect the Depression to enlarge and diversify it.

30. *Le Progrès du Saguenay*, 27 January 1928. It must be noted that the Chicoutimi area was already experiencing a slowdown in industrial activity by this time, as the Dubuc pulp plant in Chicoutimi had just closed.

31. Raoul Blanchard, *L'Est du Canada français : « Province de Québec »* (Montréal, 1935), I, p. 111.

centre, were receiving some form of relief from welfare agencies.[32] Thus, throughout the thirties, the region implicitly applied pressure on Alcan to hire local workers.

Even Alcan head office managers found the results of the lack of selection during the previous years puzzling. At the end of 1930, the company estimated that only 54 percent of the employees at the Arvida works were French-Canadian. This compared with 91 percent at their Shawinigan plant and 93 percent at their Saguenay railway and shipping subsidiaries. When asked to account for the difference, the local works manager explained that "hardly any Lake St. John residents would work in the Carbon Plant, and that many would still not go into the potrooms." "It took a number of years", wrote the company archivist, "to coax [French Canadians] off the farms in any large numbers to work indoors, particularly in the potrooms and carbon plant."[33]

With the Depression, Alcan's hiring policy increasingly favoured workers from the Saguenay. In 1932, the regional newspaper announced a resumption of production at Arvida with the warning that it was useless for people from outside the region to come look for work at Arvida without prior agreement from the company.[34] The company also gave preference to former workers.[35] The same warnings were given when the fourth potroom was reopened in January 1937. The company newspaper printed a statement from the General Manager that workers from Arvida and surrounding localities would have priority; he also warned its employees not to send for relatives or friends.[36] In April 1937, the regional newspaper reported that Alcan's newly hired workers from Chicoutimi had to provide a certificate from the city's mayor that they had resided in Chicoutimi for at least a year; this was the result of an arrangement between the company and the city to give preference to local workers.[37]

The policy worked. At the end of 1936, the company noted in its log of activities at Arvida that French Canadians made up 71 percent of its workforce; the following year, after hiring over 500 workers, the company noted that "with the exception of engineers, technical men, and a few skilled workers, all the increase in the number of employees was recruited from the District."[38] The results of the new policy were obviously worth entering into the record.

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32. Martin Ringuette, « Des lendemains incertains. Les conditions de vie à Chicoutimi entre 1925 et 1940 », *Saguenayensia*, 22 (1980), pp. 149-154.

33. T.L. Brock, "Alcan in the Saguenay: The Early Years", typescript, II: 25, 26. The author was company archivist.

34. *Le Progrès du Saguenay*, 29 September 1932.

35. Alcan chronology, 118.

36. *La Sentinelle*, 8 January 1937.

37. *Le Progrès du Saguenay*, 29 August 1927.

38. Alcan chronology, 181, 184.

The resort to indigenous labour is even more evident when other workers of Canadian origin are added to the numbers of French Canadians. Both groups taken together account for 88 percent of hirings done from 1929 to 1939. As a result, the ethnic diversity of the Alcan workforce was considerably reduced. The number of different nationalities dropped from 37 among the workers hired before 1928 to 26 among those present on 1 January 1940. Among the workers hired before 1928, the Americans, the British, the Finnish, the Irish, the Italians, the Poles, the Russians, the Czechs, the Ukrainians and the Yugoslavians each numbered more than one percent of the workers. By 1940, only the British, the Czechs and the Yugoslavians accounted for one percent or more of the workforce, as the Canadians — English and French — now reached 89 percent of the total.

There was also some self-selection on the part of the workers. From 1929 through 1933, the percentage of French Canadians who left Alcan on any given year was lower than their proportion at the beginning of that year (Table 6). From 1934 through 1937, however, the proportion of French Canadians who left is greater than their ratio in the workforce.

Table 6 Proportion of French-Canadian workers leaving during the year, Alcan, Arvida, 1925-1939

Year	Workers leaving during the year French Canadians	Total	% French Canadian	% French Canadians in workforce on 1 January
1929	146	240	60.8	53.2
1930	90	179	50.3	56.7
1931	47	103	45.6	57.8
1932	38	88	43.2	59.9
1933	7	21	33.3	62.0
1934	14	20	70.0	62.4
1935	81	102	79.4	63.5
1936	77	108	71.3	65.3
1937	118	157	75.2	66.8
1938	105	161	65.2	71.6
1939	61	85	71.8	71.3
Total	784	1264	62.0	

Source: Alcan, Arvida, personnel records.

Marital status also became a criterion for recruiting. In the thirties, the company increasingly hired married workers, a practice that was common among employers during the period. The practice recognized the heavier burdens that married workers, principally those with children, had to shoulder, but it also selected workers who would be less mobile precisely because of their family obligations. In so doing, it implicitly called for a reciprocal bond of service on the workers' part.

This preference was evident among the French Canadians Alcan hired: two thirds of them were married, and this proportion rose to 71 percent among workers from the Saguenay region. Foreign workers, on the other hand, were evenly divided between married and single workers; it was probably more difficult to find foreign workers who were married. In any event, the foreign workers were also selected with some care, since they worked on average longer than the French Canadians (7.1 years versus 6.7 years).

Yet the most obvious predictor of stability was regional origin. The differences in duration of employment was between French-Canadian workers who came from the Saguenay and those who came from elsewhere are remarkable. Married French Canadians from the Saguenay (N=639) stayed an average of seven years with the company, while married French-Canadian workers from other areas (N=70) stayed only about three years. Among single French-Canadian workers, those from the Saguenay (N=237) stayed on average six years, while the others (N=71) lasted only twenty months.

The improvement in selection methods was also apparent in the reversal of the ratio of voluntary to involuntary dismissals.[39] During the early years, most separations had been initiated by workers. From 1929 to the end of 1939, separations were most frequently initiated by the company: 47 percent of the separations fell into that category, against 40 percent of worker-initiated separations. The company parted with personnel essentially because of reductions in operations, with disciplinary reasons accounting for between 10 and 20 percent of the causes in various years. The Depression obviously pressured workers to keep their jobs; at the same time, the company did what it could to keep as much of its manpower as possible on company rolls, by reducing wages and the duration of shifts. This was partly as a relief measure, but it also spared the company the expense of training new workers when production resumed.

V — The results of the new manpower practices

The purpose of greater selectivity in hiring of workers was obviously to reduce turnover and to retain the most productive workers. The results of the new policy can be examined from various perspectives. From the employer's viewpoint, turnover measures indicate the order of magnitude of training costs over a given period; their first virtue is that they are easy to compute. Measures of persistence, on the other hand, describe cohorts and sub-groups within cohorts; they are more tedious to compute. Both types of measure indicate, in slightly different ways, the behaviour of the labour force.

One of the first writers on turnover, Sumner Slichter, simply defined turnover as the percentage of separations in a given year over the average

39. Fifty-eight percent of all separations for the later period bear some comment. Records were better kept in the latter years, in itself an indication that more attention was given to personnel matters.

number of workers.[40] As was to be expected given the early history of the Arvida works, turnover rates for 1927 and 1928, computed according to Slichter's definition, were very high (Table 7). The rate then declined to 1931, rose a bit in 1932, when production resumed briefly, then it fell to very low levels in the worst years of the Depression. It stepped up again in 1935 and thereafter exhibited a steady fall. The pattern accords with Slichter's observations: "The turnover is high in new towns and in localities which have undergone rapid growth.... The turnover rate in times of prosperity is frequently two or three times the rate in times of depression."[41] The magnitude of labour turnover at Arvida was therefore not something peculiar to the industry or the region.

Table 7 **Turnover rate, Alcan workers, Arvida, 1927-1939 (Slichter definition)**

Year	Average number of workers	Departures	Turnover rate (%)
1927	1750	1374	78.5
1928	1233	869	70.5
1929	803	240	29.9
1930	747	179	24.0
1931	614	103	16.8
1932	424	88	20.8
1933	445	21	4.7
1934	506	20	4.0
1935	755	102	13.5
1936	884	108	12.2
1937	1507	157	10.4
1938	1697	161	9.5
1939	1740	85	4.9

Source: The average yearly number of workers is the average of the monthly numbers calculated by the company. For the years 1927 through 1935, they come from *La Sentinelle*, 1, 14 (11 June 1937). Subsequent years are given in the Alcan chronology, *passim*. The number of departures is from Table 1.

However, turnover rates give no indication of the rates of persistence among different groups of workers. Persistence data on workers hired after 1927 allow a classification into three broad categories (Table 5). First were the transient workers, who stayed less than a year: they accounted for 40 percent of all workers hired in the period. A small middle group stayed with the company from one to five years. The last group of workers, larger than the

40. Brissenden and Frankel, *Labor Turnover in Industry*, preferred to use the replacement rate, that is, the least of the number of separations or hirings (to account for reductions in the size of the workforce) over the number of hours worked. Brissenden and Frankel's measure is a more accurate representation of turnover than Slichter's because it takes into account fluctuations in the size of the workforce. However, it has not been possible to compute the number of hours worked at Alcan, so it is not used here.

41. Slichter, *The Turnover of Factory Labor*, pp. 35, 32.

first, exhibited high persistence, staying with Alcan five years or more. This last group of workers joined the persistent workers hired before 1928 to make up the main body of Alcan workers during the thirties.[42]

VI — The core group

Only about 10 percent of the workers hired before 1928 remained with Alcan at Arvida until 1 January 1940. But their importance lies in their absolute numbers (N=393) and in the slow pace of hirings throughout the thirties. These workers made up more than half the workforce during the first half of the thirties and still represented over a quarter of all employees by the end of 1939. They were the stable core of the workforce at Arvida and deserve closer scrutiny.

This core group was much more homogeneous than the cohort from which it came. Ethnically, 61 percent of its members were French Canadians; another 22 percent were English-speaking Canadians. The rest were a diverse lot of 18 different nationalities, none of which accounted for more than 8 workers. Most of the French Canadians in the core group were from the Saguenay region,[43] whereas the region accounted for only 40 percent of all hirings from 1925 through 1927. Saguenay workers made up between a third and half of the core group, depending on how strict the criteria for defining geographic origin are.[44] Inversely, the core group retained only 6 of the 374 workers who came from Montréal during the first years.

Homogeneity in the core group is also reflected in marital status. Less than one worker in four was single at hiring. Among Saguenay workers, the proportion was even smaller (20 percent). The high proportion of married workers helped preserve the core group, since during the Depression the company tried to lay off single workers before married ones, a practice quite common during the Depression.

The stability of the core group was in part forced upon the workers by the number of dependents for which they were responsible. Almost all married workers, as well as a few single ones, had dependents when they were hired. Among the married and widowed workers, the average number of dependents

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42. The group had a mean duration of employment of 13.35 years. A multiple classification analysis of this group shows that geographic origin was more important than marital status or type of employment at hiring as an influence upon duration of employment. Saguenay workers had a below-average duration of employment, while other French Canadians, and particularly non-French-Canadian workers, had a higher-than-average duration: the spread between the Saguenay workers and the non-French Canadians was about four years. This would suggest that Saguenay workers may have had an easier time of finding alternative employment in the region than non-French-Canadian workers who had fewer contacts outside of Arvida.

43. Between 75 and 80 percent, the latter figure including those for whom the only address given was Arvida.

44. The lower proportion only excludes those who gave "Arvida" as home address and the higher one includes them as Saguenay workers.

was 3.4. One worker in five had six or more dependents. The number of dependents must have increased for most married workers, as they had in all likelihood more children in the years after they were hired.[45]

The core group also differed from its cohort in the types of jobs its members were assigned upon hiring. Slightly more of them went into construction and maintenance than the whole 1925-1927 cohort (45 percent against 39 percent). As well, they were over-represented in aluminium production (9.4 percent against 4 percent). The core group included fewer common labourers as well (28 percent against 44 percent). This over-representation in some areas was even more pronounced among French Canadians.

VII — The workforce at the end of the thirties

By the end of the thirties, Alcan's workforce in the Saguenay was considerably more homogeneous than during the first years of Arvida. Seventy-one percent of its workers were now French Canadians, and 74 percent of French Canadians came from the Saguenay. Saguenay workers, therefore, made up more than half the workforce. Two thirds of the workers were married, the ratio being slightly higher among French Canadians, and higher still among Saguenay workers, three quarters of whom were married.

By this time, non-French-Canadian workers had even become more stable than the French Canadians. On 1 January 1940, single workers who were not French-Canadian had been with Alcan an average of 6.4 years, whereas the French-Canadian single workers had done only 5.1 years. Among married workers, the French Canadians averaged 6.1 years, while the other married workers had done 8.6 years. These averages, however, hide the distribution of workers according to length of service (Table 8). A majority of workers had been hired since 1935, but a quarter had been with the company since 1927 or earlier. Still, recently hired workers (less than two years) only made up 17.5 percent of the total. On the whole, therefore, Alcan could count on an experienced workforce at the beginning of World War II. The war brought a sudden expansion of the plant and of the workforce, and with it new challenges in labour relations.

VIII — Conclusion

Alcan had managed to keep a core group of workers at its Arvida plants throughout the thirties. It seemingly had understood, as early as 1928, that a *laisser-faire* attitude in the selection of workers led to high turnover. Most workers had chosen to move on and seek other employment, and a few had to be dismissed for unsatisfactory performance.

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45. However, the correlation between number of dependents and length of employment is very weak (r2=0.03 for the group hired before 1928). For the group hired later, the correlation is not statistically significant.

Table 8 Distribution of workers on 1 January 1940, by year of hiring, Alcan, Arvida

Year hired	N	%
1939	166	11.1
1938	96	6.4
1937	333	22.3
1936	103	6.9
1935	164	11.0
1934	40	2.7
1933	9	0.6
1932	24	1.6
1931	18	1.2
1930	35	2.3
1929	56	3.8
1928	56	3.8
1927	121	8.1
1926	234	15.7
1925	38	2.5
Total	1493	100.0

Source: Alcan, Arvida, personnel records.

The new manpower policy, which focused on local workers, and preferably married ones, was put into effect before the Depression started. However, because of the Depression, it took some time for it to show results in the composition of the workforce. The Depression added incentive to pursue selective hiring practices, and this too helped reduce turnover: half the workers hired from 1931 through 1934 were still at Alcan at the end of 1939.[46]

Alcan's personnel policies bore fruit in areas other than persistence. There were no strikes at Alcan from 1925 until a war-time wildcat strike in 1941. To be sure, the Depression years were not conducive to worker militancy. But Alcan also took positive steps to avoid trouble. The preference given to local labour, which was clearly expressed by the company, accorded with regional values of local solidarity. Alcan would portray itself as a local company in tune with local values. When hiring resumed on a large scale in 1937, it was already publishing a company paper, ostensibly concerned primarily with plant safety. But the company pursued larger goals, according to the paper, it aimed to "share common ideals" with its workers and to "consolidate in a co-operative and harmonious way the fraternal bonds" which linked the company and the workers' families.[47] Alcan workers had already formed a union in 1936,[48] which signed a collective agreement with the company the following year. The union was part of the Catholic union movement born in

46. Jacoby, *Employing Bureaucracy*, discusses the fluctuating manpower practices of American industries during the Depression.

47. *La Sentinelle*, 4 December 1936.

48. Le Syndicat national des employés de l'aluminium d'Arvida, « 15 ans de lutte, 15 ans de progrès », undated.

the Saguenay at the beginning of the century.[49] From the start, the aluminium workers' union adopted the co-operative attitude common to Catholic unions, to which the company responded in kind. This was wise for the company, since by accepting local institutions it forestalled, at least for a time, more militant forms of unionism.[50]

49. Jacques Rouillard, *Les syndicats nationaux au Québec de 1900 à 1930* (Québec, 1979), pp. 187-190.

50. The wildcat strike of 1941 constitutes a special chapter in the history of Arvida that the author is currently writing.