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Résumé de l'article

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AN ANALYSIS OF THE PAYROLLS OF THE POINT ST. CHARLES SHOPS OF THE GRAND TRUNK RAILWAY

by

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ABSTRACT

This paper contains a summary of the methods used in, and the important findings of, an analysis of the payrolls of the Point St. Charles Shops of the Grand Trunk Railway for part of the period 1880-1917. The analysis was carried out under the following headings: ethnicity, hours of work and wages, persistence in the job and the journey to work.

KEY WORDS: *Railway shops, Grand Trunk, payrolls, language.*

RÉSUMÉ

Analyse des livres de paie des ateliers du chemin de fer du Grand Tronc à Pointe-Saint-Charles

Cet article décrit brièvement les méthodes et les résultats de l'analyse des livres de paie des ateliers du chemin de fer du Grand Tronc à Pointe-Saint-Charles entre 1880 et 1917. L'étude a porté sur les éléments suivants: ethnicité, heures de travail et salaires, conservation des emplois et déplacements pour se rendre au travail.

MOTS-CLÉS: *Chemin de fer, salaires, Grand Tronc, ethnicité.*

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As an integral part of a study of the Point St. Charles Shops of the Grand Trunk Railway (Hoskins, 1986), an analysis has been carried out of the Shops' payrolls for parts of the period 1880-1917. These shops, which were built between 1854 and 1856, have always been an important part of Montreal's industrial manufacturing establishment. While needed primarily to look after the maintenance and repair of the railway's rolling stock, the Shops' facilities were also used for manufacturing new locomotives, passenger

cars and freight cars. In the 65 years or so in which the shops were owned by the Grand Trunk Railway, such new manufacture amounted to some thousands of freight cars, many passenger cars and over 400 locomotives. Thus, as a result of both their maintenance and their manufacturing activities, the Grand Trunk Shops represented an important pool of skilled tradesmen and artisans which was an important factor in helping to build up the general level of technological competence of Montreal's manufacturing industry. The conditions of work for this pool of workers are important as they would have helped set the standards encountered by most industrial workers in Montreal.

A series of accounts payable ledgers for the period from 1902 to 1917 is now the only available formal source of payroll records for the Shops¹. These ledgers, which are held by the Public Archives of Canada in Ottawa, contain what are apparently complete Grand Trunk payroll records for the 16-year period. They are in good shape physically, and they were the source of the data for the 1902-1917 period of this study. A subsidiary source, containing data for the Car Department only, for the period from 1880 to 1898, turned up recently in a series of workmen's time books that were discovered in an old building at the Shops². They are in relatively poor condition physically and record mainly hours worked rather than wages earned. These time books provided the data for the 1880-1898 period of the study.

The analysis of the payrolls, which is the subject of this paper, was carried out under four headings: ethnicity, hours of work and wages, persistence, and the journey to work. The aim of the analysis was to provide a basis for answering questions such as the following. Did the ethnic make-up of the Shops change over the study period? Was there any ethnic bias between trades or especially any that affected people's earnings? How did hours of work, rates of pay and earnings vary from trade to trade and from time to time? How did the degree of job persistence vary in the Shops and how did it compare with persistence in industry in general? Where did the workers live? Did their residential patterns depend on the trade, the ethnic group or the transportation facilities available?

METHODS

The total crew in the Shops was generally 2 000 to 3 000 men during the 1902-1917 segment of the study period. Some trades or job classifications had as many as 100 to 200 or more men while others had as few as 10 men, the mean size (in 1910) being about 84 men per job classification. After some consideration, the decision was made to carry out the analysis by working with the whole body of the available data rather than by sampling it. The magnitude of the task was reduced, however, by restricting the analysis to the 25 main trades at eight-year intervals, the actual months analyzed being January 1902, January 1910, and December 1917, with 84%, 83% and 74% of the total Shops' crews being included in the respective periods.

The criterion used to assign workers to either the anglophone or francophone category was surname. English and French surnames are quite distinctive and, for an anglophone who has lived in Quebec for years, it was quite easy to run down a list of names and assign each to one category or the other. Doubtful cases were settled by reference to the current Montreal telephone directory. Names that were patently neither English nor French were assigned to an "Other" category while names like *Martin* or *Raymond*, that have the same spelling in both languages, were assigned to an

"Uncertain" category. The latter usually contained no more than about three percent of the total names while the "Other" category was small early in the study period, but quite substantial, in some cases, toward the end.

While basing ethnicity on surnames undoubtedly leads to some errors of assignment, many of them would tend to cancel each other out. In general, it is believed that the method used was adequate for the purpose intended as long as no great store is set on the absolute values of the numerical data obtained. These data were interpreted as being relative, indicating the differences in proportions of anglophones, francophones and others among the various groups of workers.

To evaluate job persistence rates, payroll lists for each classification and period to be studied were alphabetized with the help of the computer and then the lists were compared visually. Repeating names were counted and expressed as percentages of the total number of workers present for each classification at the beginning of the study period, thus giving the persistence rates. Persistence data were obtained for two basic study periods. The first, for the Car Department only, ran for 22 years from February, 1880 to January, 1902 while the second period, for the entire Shops, ran for 16 years from January 1902 to December 1917.

The use of payroll records as a basis for the persistence study led to some uncertainties as to the validity of the results obtained. In their favour, it could be assumed that these records represented a concentrated, accurate and complete statement down to the last man of all the workers involved at any particular time. However, against this was the fact that, in the payrolls, the workers were usually identified by only one initial (e.g. A. Smith, I. Benoit, L. Bourdon). Christian names or second initials were seldom shown. Therefore, in comparing a list from one pay period with that from another, there was no assurance that two A. Smiths, one on one list and one on the other, were the same person. The study was carried out based on the assumption that the two were, in fact, the same person.

It was also assumed that a worker identified in two successive payroll lists had been present throughout the intervening six or eight-year period, with no breaks in service in the particular job classification during that time. Due to these uncertainties, the values obtained must, once again, be treated as relatives, not absolutes.

For tracing places of residence, to reduce the amount of work involved, the ten most important and representative trades were selected for study, care being taken to include representatives of the top, middle and bottom of the wage scales. Trades selected were machinists, machinists' assistants, blacksmiths, blacksmiths' assistants, boilermakers, boilermakers' assistants, machine men and labourers from the Motive Power Department, and carpenters and labourers from the Car Department. These ten trades included about half of the total Shops' crews except in December, 1917, when the proportion fell to one third.

Each name on alphabetized lists of the men concerned was then looked up in the alphabetical section of the Lovell's City of Montreal directory for the appropriate year. There were the usual problems in record matching stemming mainly from the railway's practice of showing only one initial or, occasionally, a single Christian name, for each hourly-paid man in the payroll ledgers. Very often, the directories also showed only a single initial or Christian name, and the task was then to decide whether the name found in the directory was that of the person sought.

The spelling in the payroll records was often obviously wrong, such as "Amasse" for Amesse and "Doud" for Dowd. Spelling errors were sometimes compounded by the

fact that most of the payroll records were handwritten with pen and ink. While some were very clear and legible, many were not and thus errors may have occurred in deciphering names. Directory entries were usually accepted even if the spellings did not agree perfectly.

Matching was done very conservatively. To be acceptable, a directory entry had to show the man's surname, initial or Christian name, address and occupation. Where an otherwise-acceptable entry showed no occupation or, simply, "G.T.R. employee", it was not accepted. Quite frequently, a name was not present in the directory for the appropriate year but was present in the issue for either the preceding or succeeding year. Such names were usually accepted despite the possible error involved. In order not to bias the study of residential patterns, care was taken not to make local residence a criterion for identity matching. Thus, addresses were accepted regardless of the distance from the Shops, even as far away as Amherst, Panet, Iberville or Aylwin Streets.

Very often more than one good possibility to match with a desired name was found in the directory. For example, two or even ten carpenters, all named J. Poirier, might be found to match with "J. Poirier, carpenter". None of these names was accepted unless one of them was specifically designated "carpenter G.T.R.". Even if the choice in the directory was between only two men, one living, say, half a mile from the Shops and the other five miles away, usually neither was accepted.

Frequently, it was difficult to decide whether the occupation shown in the directory (as reported to a door-to-door canvasser by the man or his wife) was the same as the occupational title in the payroll records. To resolve this problem, it was decided to accept, for a "machinist", directory occupations of machinist, fitter, brass-finisher, engineer, turner, toolmaker, locomotive builder, millwright, or inspector of engines; for a "carpenter", titles of patternmaker, cabinet-maker, joiner, carpenter, finisher, saw-filer, or car builder.

Few of the tradesmen's assistants described themselves by that title. Some gave as their occupation the occupation of the tradesman for whom they worked (e.g. "blacksmith" or "engineer") which was accepted. Others seemed to appear in the directory as "laborer". Sometimes it was accepted and sometimes it wasn't depending on the apparent difficulty of sifting out the real laborers from those who were really assistants.

The addresses found for the men of each trade and period were plotted on maps of Montreal so that the distributions and concentrations in particular areas could be seen. As examples, distributions of machinists and carpenters in January, 1910 are shown on the maps (figures 1 and 2). Plotting was accurate to within about one city block except when the density of symbols was very high. To facilitate analysis of the maps, the city was arbitrarily broken down into a number of geographical areas and marked out in distances from the Shops as shown on the map (figure 3). The area boundaries were based on municipal boundaries (of 1880 or later), physical features such as railway tracks or the Lachine Canal, or on contemporary notions of a particular area such as the city centre (Area 7 on the map). With this areal breakdown, it was then a simple matter to count the number of symbols in each area or within a certain distance of the Shops and to summarize these data in tables.

City directories are not noted for being the ideal source to use for research purposes. In the 19th century at least, directories often missed people, especially those at the lower economic levels (Dawley, 1976, p. 142). This failing was borne out by the experience gained in the present study when it was found that the directories contained

very few of the immigrant men with difficult Central or eastern European names, who were working in the Shops in the later part of the study period. There are probably many reasons for this and they cannot all be laid at the door of the directory's publisher although the commitment and zeal of his door-to-door canvassers may have had a bearing on the matter. We might expect that factors such as frequent layoffs, frequent moves, residence in boarding and rooming houses, inability to speak English or French, or refusal to give information may all have played their part.

Due to the shortcomings of the city directory method, again the results obtained were not looked upon as being extremely precise. It is believed that they give a reasonably accurate idea of the general situation that prevailed, but they do not imply that a high degree of numerical accuracy exists in the quantitative results found, many of them probably being accurate to only a few percent.

RESULTS OF THE STUDY

The accompanying tables contain some of the results. Table 1 shows the ethnic distribution found in the main job classifications of the Car Department between 1880 and 1896. Table 2 gives the same information for 14 important job classifications of the whole Shops for the period 1902 to 1917. It will be noted that 60% to 70% of the entire Shops' crew is covered by the trades in this table while the coverage is slightly greater in Table 1.

Tables 3 to 5 summarize hours of work, rates of pay and earnings. The figures in Table 3 show daily, weekly and monthly hours of work in the Car Department of the Shops at four different times between 1880 and 1898. Table 4 contains data showing monthly hours of work for the whole Shops during the 1902-1917 period. By comparing these data with those in Table 3, a good impression of the probable daily and weekly hours worked in this later period can be obtained. Table 5 shows the rates of pay and earnings for 26 job classifications between January, 1902 and December 1917 and, in addition, a few incidental wage rates that were available for January 1898 are included.

Tables 6 and 7 contain results for the study of persistence in the job. The former covers the whole Shops for the period 1902 to 1917. The latter contains figures for the Car Department only, from 1880 to 1902 and from 1902 to 1917.

SUMMARY OF THE FINDINGS

Ethnicity in the shops

During the study period from 1902 to 1917, anglophones were greatly in the majority among the skilled, metal-working tradesmen. Thus, as the Motive Power Department was essentially a metal-working area, its employees being mainly blacksmiths, boilermakers, machinists, pipefitters and brass-finishers along with their assistants and labourers, it follows that anglophones were generally strongly in the majority in this department.

In contrast, the Car Department, from 1880 to 1917, was basically a wood-working area, its main trades being carpenters, painters and labourers. Anglophones were in the majority among these carpenters from 1880 to 1888, and, in the whole Car

Figure 1

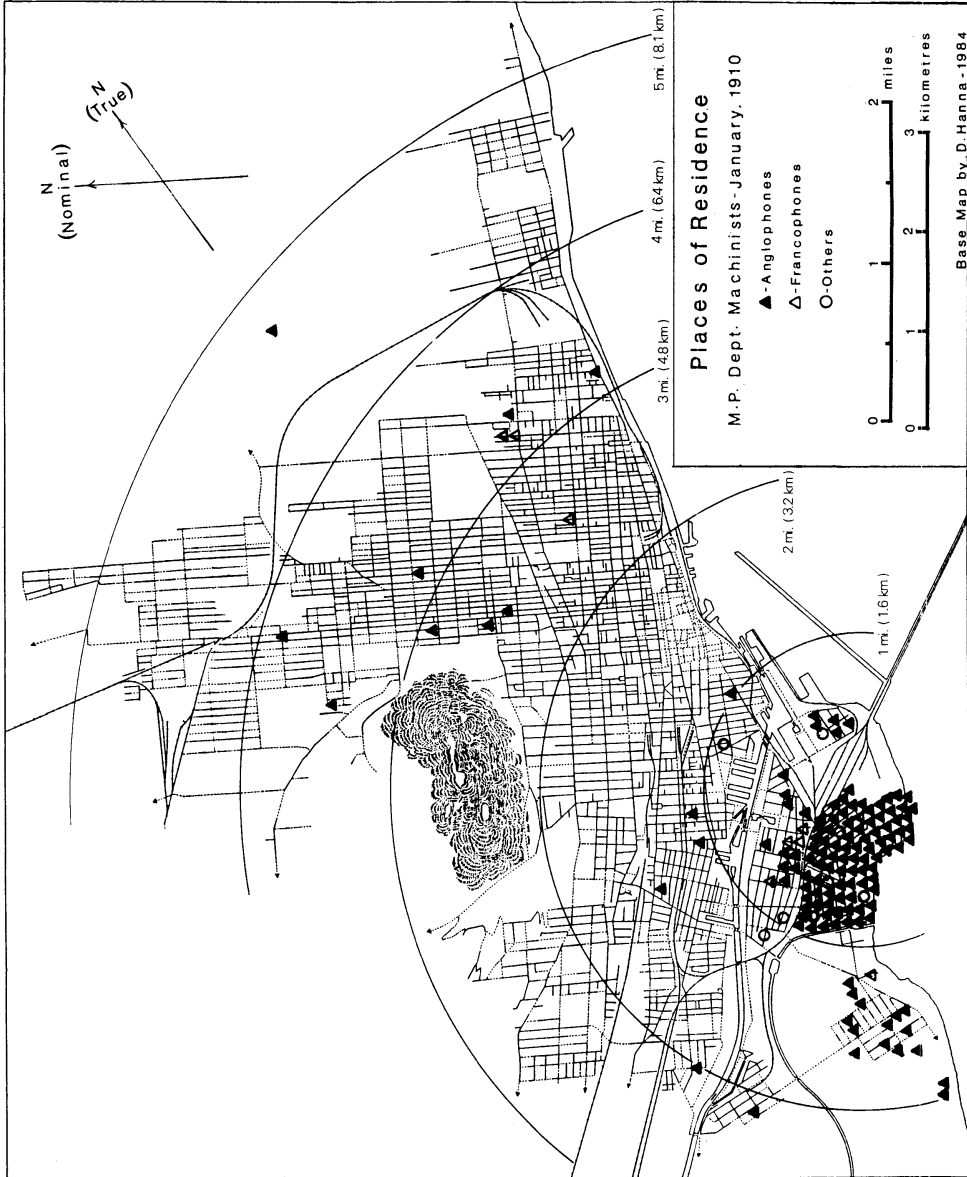


Figure 2

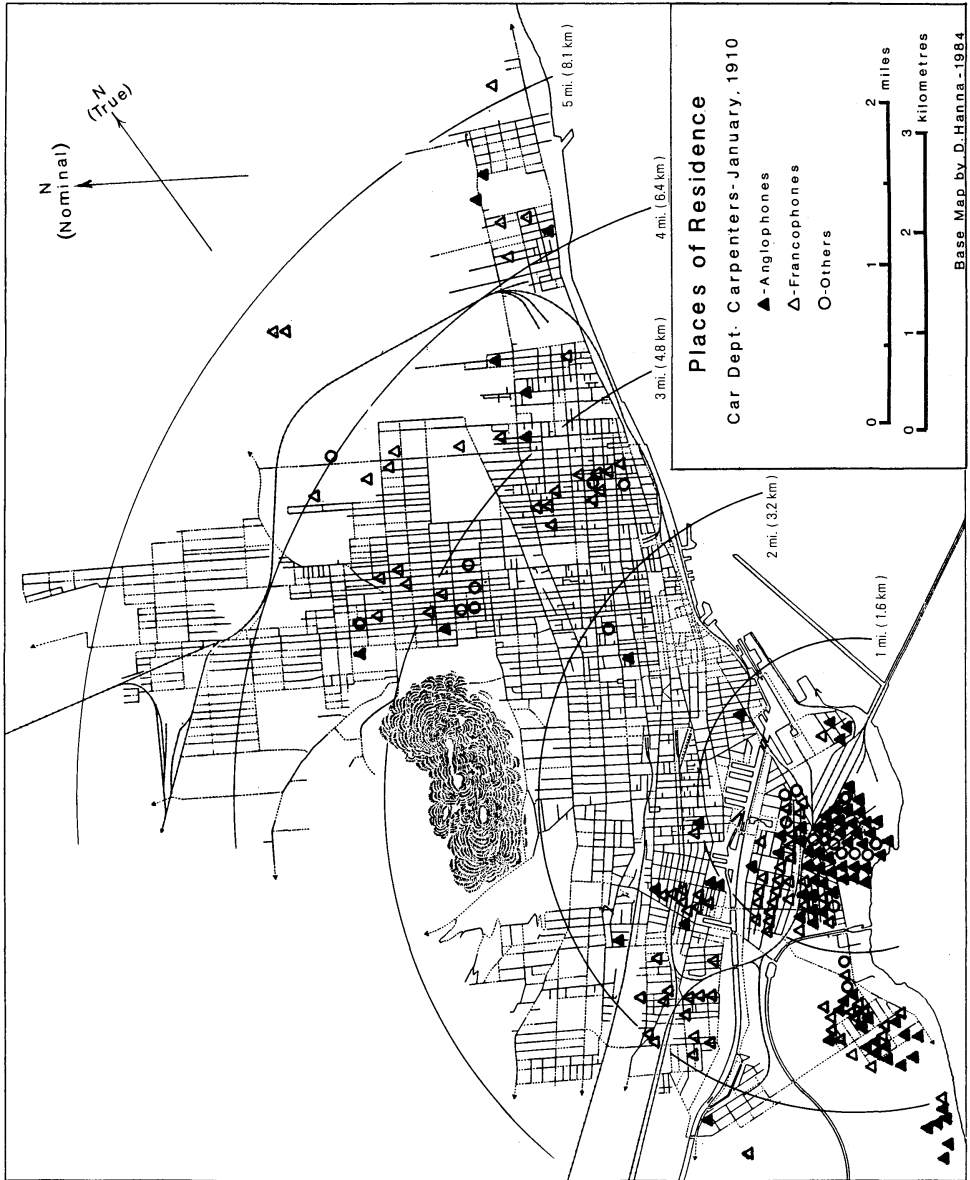


Figure 3

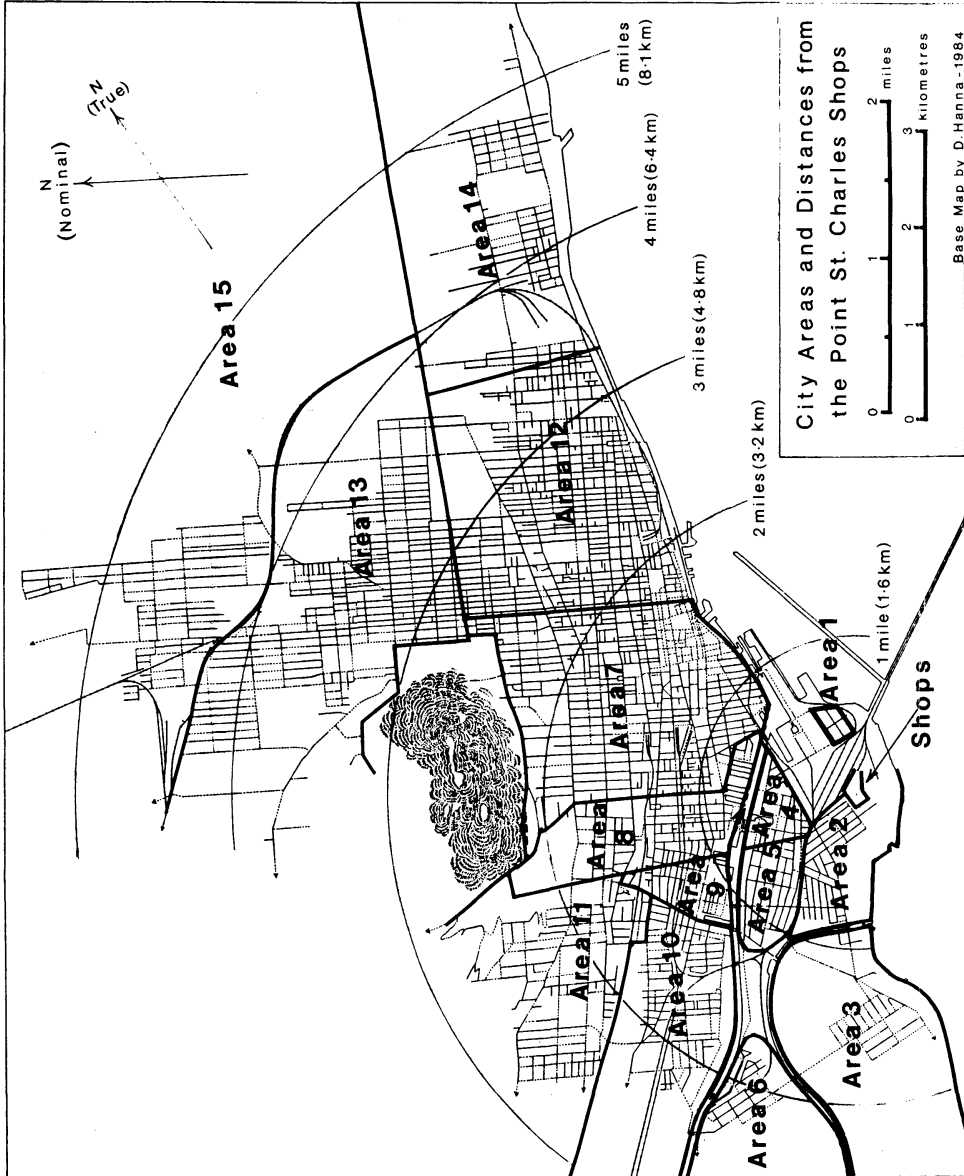
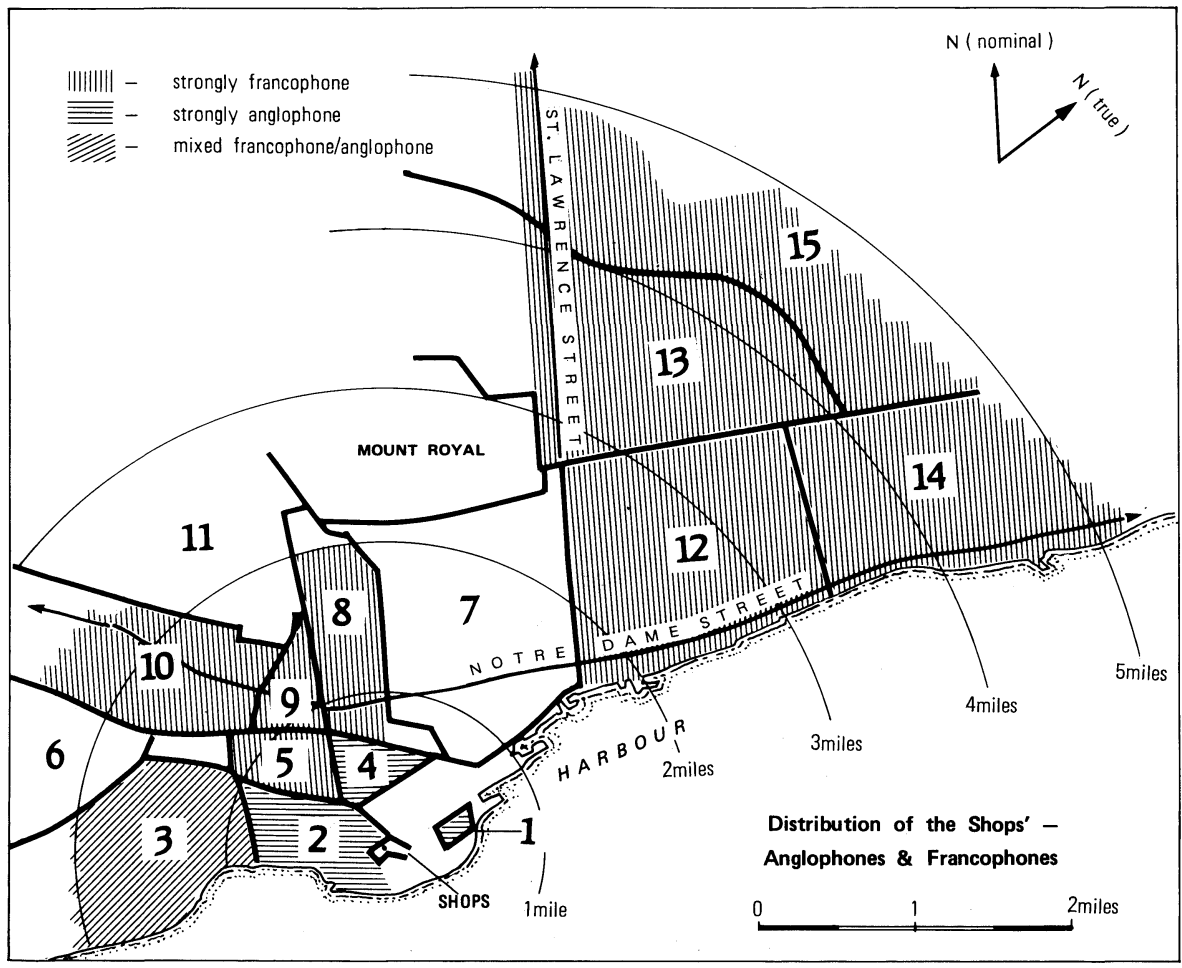


Figure 4



Department, from 1880 to 1896. However, francophones displaced anglophones as the dominant group among these carpenters from 1896 onwards and, in the Car Department as a whole, from 1902 onwards. The painting crew had a strong francophone majority throughout the entire 37-year study period, usually outnumbering anglophones by more than two to one.

This change in the ethnic make-up of carpenter and painter crews probably resulted from francophones advancing directly from labourer to carpenter and painter status in the construction industry. They then used this status to jump into the same categories in regular industry (Reynolds, 1935, p. 104).

In the unskilled, labourer and labourer-type occupations in both the Motive Power and Car Departments, francophones, while always present to a greater or lesser extent, were seldom in the majority. In the earlier years in such occupations, they were usually considerably outnumbered by anglophones. In later years, Central and eastern European immigrants largely displaced anglophones from many of the unskilled job classifications and usually outnumbered the francophones as well, or did so in conjunction with the remaining anglophones.

The only occupation besides painting in which francophones were consistently in the majority over anglophones was the moulding operation. This occupation, which combined knowledge and skill with a lot of hot, dirty work, was, of course, an integral part of the foundry. This only went into operation at the Shops around 1884 (*Grand Trunk Report*, 1884) and was not an established, vital part of the organization.

The general pattern of the ethnic distribution of workers in the various trades confirmed a pattern suggested by an early literature review, namely that anglophones would be found to be in the majority in most of the skilled trades with the exception of wood working and painting. In these, francophones would be found to be greatly in the majority. The same type of ethnic distribution was apparent in other heavy, iron and steel industries in Montreal in the 1930s (Reynolds, 1935, p. 106). The Point St. Charles Shops were thus a microcosm representative of much of the heavy industry in Montreal.

Plausible reasons can be advanced to justify continuing anglophone dominance of the skilled, metal-working operations in the Motive Power Department. They would include the suggestion that the education of urban-based anglophones, with their generally long-time background and experience in urban heavy industry, made them more suitable than rural, agriculturally-based francophones for adapting to the needs of these operations. However, it also seems possible that this dominance could be ascribed, at least in part, to prejudice or bias in favour of anglophones by the generally English-speaking supervision of the department. While little data are available with which to compare the ethnic make-up of the supervision of the Motive Power and Car Departments, the fact that the Motive Power carpenter and painter crews were dominated by anglophones, in strong contrast to the francophone domination of these same crews in the Car Department, seems to point to a bias for anglophones in the Motive Power Department.

Hours of Work, Rates of Pay and Earnings

In general, as Table 3 shows for the Car Department in the 1880-1898 period, work schedules called for hourly-paid men in the Shops to work 7-1/2 to 9 hours per day and 45 to 55 hours per week. There was usually some work on Saturdays but little, if any, on

Table 1
Ethnic Distribution of the Hourly-Paid Workers in the Car Department of the Point St. Charles Shops — 1880 to 1896

<i>Job Classification</i>	<i>February, 1880</i>					<i>January, 1888</i>					<i>February, 1896</i>				
	<i>Total Men</i>	<i>A %</i>	<i>Proportion of F %</i>	<i>U %</i>	<i>O %</i>	<i>Total Men</i>	<i>A %</i>	<i>Proportion of F %</i>	<i>U %</i>	<i>O %</i>	<i>Total Men</i>	<i>A %</i>	<i>Proportion of F %</i>	<i>U %</i>	<i>O %</i>
Carpenters	164	54	35	4	7	181	48	42	4	6	210	42	53	1	5
Painters	44	34	52	—	14	73	22	67	3	8	94	27	63	3	7
Misc. Skilled (Metal) Tradesmen	19	89	5	—	5	26	92	4	—	4	40	100	—	—	—
Machine Men	19	74	26	—	—	36	64	25	6	6	45	62	33	2	2
Labourers	54	81	13	—	6	114	73	22	2	4	111	75	20	5	1
Total	300	59	31	2	7	430	54	37	3	5	500	53	41	2	4
Total Crew — Car Department	405					598					683				
Proportion included	74%					72%					73%				

A = Anglophones; F = Francophones; U = Uncertain; O = Others.

Table 2

Ethnic Distribution of the Hourly-Paid Workers in Typical Job Classifications of the Point St. Charles Shops — 1902 to 1917

Job Classification	January, 1902					January, 1910					December, 1917				
	Total Men	A %	Proportion of F %	U %	O %	Total Men	A %	Proportion of F %	U %	O %	Total Men	A %	Proportion of F %	U %	O %
<i>Motive Power Department</i>															
Machinists	160	86	5	3	6	260	86	7	2	5	197	75	14	5	7
Machinist's Assistants	75	79	16	1	4	209	72	7	2	18	200	53	20	3	25
Boilermakers	29	90	7	—	3	30	80	13	—	7	20	75	20	—	5
Boilermaker's Assistants	94	68	29	1	2	102	69	22	3	7	82	43	43	1	13
Blacksmiths	29	83	14	3	—	25	92	8	—	—	16	81	13	6	—
Blacksmith's Assistants	79	53	38	3	6	73	66	23	4	7	61	51	39	—	10
Moulders	60	40	53	2	5	66	36	55	5	5	45	36	51	11	2
Machine Men	83	74	18	1	7	100	81	12	—	7	87	66	10	—	24
Misc. Skilled (Metal) Trademen	43	74	23	2	—	50	70	28	—	2	61	62	31	2	5
Labourers	128	55	32	5	9	163	26	6	2	67	179	10	6	—	84
Total M. P. Department	780	70	23	2	5	1078	67	14	2	17	948	50	20	3	27
<i>Car Department</i>															
All Carpenters	263	32	65	1	3	380	38	48	4	10	273	24	55	3	18
All Painters	123	29	68	2	2	105	30	65	2	4	97	27	66	3	4
Misc. Skilled (Metal) Trademen	29	83	14	—	3	48	83	13	2	2	61	77	18	—	5
Labourers	93	46	47	4	2	118	57	31	3	9	115	28	37	2	34
Total Car Department	508	37	58	2	3	651	43	46	3	8	546	31	50	2	17
Total Whole Shops	1288	56	37	2	5	1729	58	25	3	14	1494	44	31	2	23
Total Crew — Whole Shops	1842					2525					2544				
Proportion included	70%					68%					59%				

A = Anglophones; F = Francophones; U = Uncertain; O = Others.

Table 3
Actual Hours of Work per Man — Car Department — Point St. Charles Shops — 1880-1898

Job Classification	February, 1880						January, 1888							
	Portion of Month	Per Week-day	"Standard" Hours		Total for Week	Total for Month	Average Hours Actually Worked in Month	Portion of Month	Per Week-day	"Standard" Hours		Total for Week	Total for Month	Average Hours Actually Worked in Month
Carpenters	3 wks.	9½	5	—	52½)	212	199	Whole	8	5	—	45	188	179
	1 wk.	10	4	—	54)									
Machine Men	Same as above				52½)	212	238	Whole	8	5	—	45	188	184
Misc. Skilled Tradesmen								Whole	8	5	—	45	188	188
Painters	Same as above				52½)	212	205	Whole	8	5	—	45	188	165
Labourers	)							Whole	8	5	—	45	188	187
	) Same as above				52½)	212	220							
L. Labourers	)				& 54)			Whole	9	5	—	50	209	160

Job Classification	February, 1896						January, 1898							
	Portion of Month	Per Week-day	on Saturdays	on Sundays	Total for Week	Total for Month	Average Hours Actually Worked in Month	Portion of Month	Per Week-day	on Saturdays	on Sundays	Total for Week	Total for Month	Average Hours Actually Worked in Month
Carpenters	2 wks.	7½	7½	—	45)	188	182	Whole	7½	7½	—	45	188	180
	2 wks.	9	—	—	45)									
Misc. Skilled Tradesmen	Same as above				45	188	178	Whole	7½	7½	—	45	188	195
All Painters	Same as above				45	188	177	Whole	7½	7½	—	45	188	180
Machine Men	Same as above				45	188	183	Whole	9½	7½	—	55	232	232
Labourers	Same as above				45	188	192	Whole	9½	7½	—	55	232	207
L. Labourers	Whole	9	9	—	54	221	217							

Sources : Workmen's Time Books for the appropriate periods.

Table 4
Monthly Hours of Work (Average per Man in the Stated Month) at the Point St. Charles Shops — 1880-1917

Job Classification	Actual (As recorded)								Actual (Calculated)*								
	Feb., 1880		Jan., 1888		Feb., 1896		Jan., 1898		January, 1902			January, 1910			December, 1917		
	Standard	Actual	Standard	Actual	Standard	Actual	Standard	Actual	No Contract Pay	With Contract Pay	Overall	No Contract Pay	With Contract Pay	Overall	No Contract Pay	With Contract Pay	Overall
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<i>Motive Power Department</i>																	
Forgeman and Assitants									None	255	255	None	292	292	None	217	217
Roll. Mill excl. Lab.									219	174	183	257	193	205	206	165	172
Blacksmiths									260	260	260	None	191	191	None	217	217
Boilermakers									203	222	215	None	206	206	205	177	190
Foundry Moulders									226	259	244	198	203	202	194	184	187
Machinists									229	223	227	251	198	204	216	223	220
Misc. Skilled Tradesmen									235	221	228	161	201	198	265	215	222
Machine Men									250	229	233	189	196	196	183	197	193
Carpenters									282	None	282	232	210	219	256	206	235
Blacksmith's Assitants									260	256	258	227	203	207	281	200	205
Rolling Mill Labourers									218	222	219	237	205	220	151	159	155
Painters									—	—	—	181	201	197	201	197	198
Boilermaker's Assistants									180	205	195	190	193	193	179	181	181
Machinist's Assistants									262	226	260	223	194	208	209	220	217
Foundry Fettlers & Lab.									230	260	235	220	207	219	225	200	223
Labourers									212	214	212	199	185	198	203	208	204
Machinist Apprentices and Improvers									222	231	227	165	199	196	164	192	178
<i>Motive Power Department Average **</i>									233	230	233	209	205	209	209	198	201

Car Department

Misc. Skilled																	
Tradesmen	—	—	188	188	188	178	188	195	216	206	216	271	294	276	223	178	184
P.C. Painters	—	—	—	—	—	—	—	—	183	213	183	225	186	188	183	175	176
Iron Machine Men	212	238	188	184	188	183	232	232	218	199	212	270	230	241	146	191	189
F. C. Carpenters)))))))))))))))))
	212	199	188	179	188	182	188	180	198	193	196	201	199	199	159	171	166
P. C. Carpenters)))))))))))))))))
												187	196	190	168	176	175
Wood Machine Men	—	—	—	—	—	—	—	—	207	136	204	182	221	198	188	174	177
F. C. Painters)))))))))))))))))
	212	205	188	165	188	177	188	180	189	170	181	157	211	202	169	167	167
P. C. Painter's Assts.)))))))))))))))))
Labourers	212	220	188	187	188	192	232	207	193	206	195	176	188	186	165	155	156
Car Department																	
Average **	212	216	188	181	188	182	206	199	201	189	198	207	216	209	173	172	172
Whole Shops Average **									222	217	223	208	208	209	196	189	191

* Calculated from the corresponding wage rate and earnings data. (A number of checks showed that the calculated values agreed very closely with the values obtainable by averaging the hours of work performed by individual workers as recorded in the Accounts Payable ledgers.)

** The averages shown at the bottoms of the columns are not weighted for the numbers of men in the various classifications as several checks showed that the simple and weighted averages were within a few percent of each other and thus that the simple averages were adequate for the purposes intended here.

Table 5

Average Hourly Wage Rates and Average Monthly Gross Earnings at the Point St. Charles Shops — 1898 to 1917

Dept.	Job Classification	January, 1902					January, 1910			December, 1917			
		January, 1898 Average Wage Rate in ¢	No. of Men	Average Wage Rate in ¢	Average Gross Earnings in \$	No. of Men	Average Wage Rate in ¢	Actual Average Gross Earnings in \$	Predicted* Average Gross Earnings in \$	No. of Men	Average Wage Rate in ¢	Actual Average Gross Earnings in \$	Predicted* Average Gross Earnings in \$
1	2	3	4	5	6	7	8	9	10	11	12	13	14
M. P.	Forgemen and Assitants		13	18,6	70,22	13	21,2	97,82	80,50	10	27,9	102,08	133,00
M. P.	Rolling Mill excluding Labourers		35	16,5	56,23	28	15,8	82,11	64,50	35	26,2	67,62	106,50
M. P.	Blacksmiths		29	20,9	62,72	25	25,4	72,83	71,00	16	31,6	114,94	119,00
M. P.	Boilermakers		29	20,6	52,11	30	25,3	71,00	59,50	20	38,5	88,24	99,00
M. P.	Foundry Moulders		60	18,7	55,01	66	23,2	63,61	63,50	45	39,7	96,04	104,00
Car	Misc. Skilled Tradesmen	18,1	29	16,9	36,97	48	20,6	60,66	42,50	61	28,4	72,42	70,00
M. P.	Machinists		160	18,7	47,80	260	22,3	60,58	54,50	197	33,0	91,08	91,00
M. P.	Misc. Skilled Tradesmen		43	17,1	45,06	50	19,8	52,69	51,50	61	30,1	91,78	85,50
Car	P. C. Painters	16,0	94	16,1	29,49	67	20,8	50,35	33,50	43	28,4	67,20	56,00
M. P.	Machine Men		83	15,3	44,47	100	18,4	49,62	51,00	87	24,5	64,12	84,00
Car	Iron Machine Men		24	13,5	31,39	26	15,6	48,26	36,00	26	24,1	72,13	59,00
M. P.	Carpenters		16	16,7	46,95	32	19,4	51,75	53,50	34	31,5	89,24	89,00
Car	F. C. Carpenters	)				227	20,0	45,14	40,50	177	28,9	54,86	67,50
Car	P. C. Carpenters	)	263	17,3	35,54								
M. P.	Blacksmith's Assistants		79	12,4	37,36	73	15,1	43,47	42,50	61	21,0	68,85	70,50
M. P.	Rolling Mill Labourers		32	12,2	28,65	41	14,0	42,14	32,50	48	24,9	42,53	54,50
Car	Wood Machine Men		29	15,6	32,00	32	19,8	40,04	36,50	26	29,1	65,30	60,50
M. P.	Painters		—	—	—	39	16,7	42,37		25	25,2	63,38	70,50
Car	F. C. Painters	)				14	16,4	37,49	)	18	26,3	61,28)
Car	P. C. Painter's Assistants	) 14,5	29	14,4	29,38				) 33,50	36	23,3	46,36	) 55,50
M. P.	Boilermaker's Assistants		94	13,5	30,44	102	14,3	37,48	35,00	82	23,8	61,22	57,50
M. P.	Machinist's Assistants		75	12,7	33,41	209	14,6	35,75	29,00	200	23,1	65,58	63,14
M. P.	Foundry Fettlers		39	12,6	32,17	38	15,2	35,38	37,00	30	25,5	58,96	61,00
Car	Labourers	12,4	93	12,2	24,38	118	14,9	29,79	28,00	115	24,0	42,47	46,00
M. P.	Labourers		128	11,3	24,15	163	14,1	28,60	27,60	179	22,7	49,92	45,65
M. P.	Machinist Apprentices and Improvers		68	6,9	18,33	126	11,2	29,50	21,00	154	14,6	31,74	34,50

* Based on the cost of living index.

Table 6
Persistence in the Point St. Charles Shops from 1902 to 1917

Dept.	Job Classification	Jan., 1902		Jan., 1910			Dec., 1917			Significance Test on 1910 A* Proportion	
		No. of Men	A* %	Men of 1902 Traced			Men of 1902 Traced			Z Value	Significant?
				No. of Men	Persistence %	A* %	No. of Men	Persistence %	A* %		
M. P.	Forgemen & Assistants	13	77	6	46	83	4	31	75		
M. P.	Rolling Mill excluding Labourers	35	80	12	34	83	2	6	100		
M. P.	Blacksmiths	29	83	17	59	88	7	24	71		
M. P.	Boilermakers	29	90	10	35	90	4	14	75		
M. P.	Foundry Moulders	60	40	30	50	30	14	23	29	+ 0,93	No
Car	Misc. Skilled Tradesmen	29	83	11	38	91	7	24	90		
M. P.	Machinists	160	86	73	46	92	30	19	90	- 1,34	No
M. P.	Misc. Skilled Tradesmen	43	74	13	30	69	1	2	Nil		
Car	P. C. Painters	94	31	32	34	25	17	18	24	+ 0,64	No
M. P.	Machine Men	83	74	38	46	74	10	12	80		
Car	Iron Machine Men	24	50	7	29	14	3	13	33		
M. P.	Carpenters	16	63	6	38	83	2	13	50		
Car	Carpenters	263	32	110	42	36	34	13	38	- 0,76	No
M. P.	Blacksmith's Assistants	79	53	16	20	69	9	11	67		
M. P.	Rolling Mill Labourers	32	63	4	13	50	1	3	100		
Car	Wood Machine Men	29	41	15	52	53	10	35	50		
Car	F. C. Painters	29	21	8	28	Nil	4	14	Nil		
M. P.	Boilermaker's Assistants	94	68	13	14	69	7	7	43		
M. P.	Machinist's Assistants	75	79	18	24	78	8	11	75		
M. P.	Foundry Fettlers & Labourers	39	33	6	15	17	Nil	Nil	Nil		
Car	Labourers	93	46	7	8	57	2	2	Nil		
M. P.	Labourers	128	55	6	5	67	1	1	Nil		

* A = Anglophones.

Table 7

Persistence in the Car Department of the Point St. Charles Shops from 1880 to 1902 and from 1902 to 1917

Job Classification	February, 1880 to January, 1902												January, 1902 to December, 1917						
	Feb., 1880		January, 1888			February, 1896			January, 1902			Jan., 1902		January, 1910			December, 1917		
			Traced from 1880			Traced from 1880			Traced from 1880					Traced from 1902			Traced from 1902		
	No. of Men	A %	No. of Men	Persistence %	A %	No. of Men	Persistence %	A %	No. of Men	Persistence %	A %	No. of Men	A %	No. of Men	Persistence %	A %	No. of Men	Persistence %	A %
Misc. Skilled																			
Tradesmen	19	89	11	58	91	8	42	100	2	11	100	29	83	11	38	91	7	24	90
Machine Men	19	74	5	26	100	5	26	100	1	5	100	53	45	22	42	41	13	25	46
Carpenters	164	54	64	39	52	49	30	49	32	20	50	263	32	110	42	36	34	13	38
Painters	44	34	23	52	26	11	25	18	9	21	22	123	28	40	33	20	21	17	19
Labourers	54	81	8	15	88	1	2	100	Nil	Nil	Nil	93	46	7	8	57	2	2	Nil

A = Anglophones.

Sundays. While, for most of the Shops' workers, the working hours were reasonable (considering the period in question), there were always small numbers of men, such as the watchmen, who regularly worked excessively long hours of up to 300 to 400 per month. These men seemed to work steadily, day after day, seven days a week, seldom ever having a day off.

Total earnings in any period depended on the hours worked, the rate of pay per hour and whether a man was working on a "contract". The latter is believed to have been a form of piece-work payment scheme. While it might be thought that men working on contracts would have had to work a different number of hours per day or per week than men working against simple wage rates, there was little or no evidence of this, both groups of men working much the same hours.

The system of paying men on a contract basis became more common as time passed. The Shops' management had the right to require men to work on a contract or on a straight wage rate system, as it preferred (*Grand Trunk Rules*, 1907, p. 3). Between 1902 and 1917, the number of Shops' men on contract rose from about one third to two thirds of the total crew, the unskilled labourers being the least involved, at about one third of their number.

In any listing of wage rates (or gross earnings) arranged in descending order, the skilled, metal-working tradesmen usually fell into the top third, less-skilled metal workers, wood workers and painters generally appeared in the middle third, and labourers and other unskilled workers were to be found in the lower third. As the metal workers mainly worked in the Motive Power Department, it followed that the earnings of the tradesmen in this department were generally higher than those in the Car Department. However, at the lower end of the scale, among the unskilled labourers, there was little difference in the remuneration of the employees of the two departments.

Based on the limited amount of data available in the literature, it appears that the Shops' wage rates were competitive with going rates in Montreal. Wages rose as time passed, more or less keeping pace with the rising cost of living (Pelletier, 1917, p. 2). The result was that the machinists, for example, who averaged almost 19 cents per hour in January, 1902, were receiving an average of 33 cents per hour 16 years later, in December, 1917. In comparison, rates for the unskilled Motive Power labourers were just over 11 and 22 cents per hour, respectively. Thus the labourers' rates doubled, whereas the machinists' only increased by 1,75 times, indicating that the differences between the rates of the skilled and unskilled workers were probably getting smaller as time passed.

Within any job classification, there were always wide ranges in rates of pay among individual workers. Considering the example of the machinists again, in 1902, when the mean wage was 18,7 cents per hour, there was a range of 13 cents (70% of the mean value) between the lowest and the highest rates. In 1917, when the mean was 33,0 cents per hour, the range widened to 30 cents per hour, or 91% of the mean. For the unskilled labourers, the ranges were often much smaller, amounting to only 3 cents per hour (27%) for the Motive Power labourers in 1902 or 3-1/2 cents per hour (15%) for the Car Department men in 1917.

There were also wide ranges in the amounts that individuals received for contract pay. In January, 1902, payments ranged from 0,50 \$ to 41,00 \$ for particular individuals (not necessarily within the same job classification) while, in December, 1917, amounts paid varied from 0,21 \$ to 76,55 \$. With very large payments such as the latter being

made, some men were receiving more in contract pay alone, than other men were receiving in total wages.

Within job classifications, bias based on ethnicity did not appear to be a factor affecting the relative earnings of anglophones and francophones. Between classifications, it may have been a factor, if such facts as the high proportion of anglophones in the Motive Power Department, or of francophones in later years in the Car Department, were based on ethnic bias, as seems possible.

Persistence

Despite some anomalies, there was a fairly strong direct relationship between skill levels and persistence rates, throughout the study period. There was some indication that persistence rates were higher from 1880 to 1902 than from 1902 to 1917, but the true situation may have been obscured by the effect of the War. The persistence rates at Point St. Charles appear to have been quite high as compared to those experienced by other industries. However, as most persistence data reported in the literature are for company, rather than job persistence (Bodnar, 1977, p. 56 and 58; Brissenden *et al.*, 1922, p. 76), comparisons are difficult and this finding may be open to dispute. There did not seem to be any significant difference between anglophones and francophones in their tendencies to persist in particular job classifications.

Places of residence and the distance to work

While the following conclusions strictly apply only to the traceable workers in the trades studied, which, from 1902 to 1917, included about half of the total Shops' crew, it is felt that there is a strong likelihood that they can be applied also to most of the remaining anglophone and francophone workers in the Shops. Little can be said about the "Others" (Central and eastern Europeans who, by 1917, made up about 23% of the Shops' personnel), as few of them could be found in the city directory listings.

A large majority of the Shops' workers lived within practical walking distance of their work, half to two thirds living within one mile of the Shops, and three quarters or more living within two miles. The proportion within such easy reach of the Shops changed as time passed, dropping from about 90% within two miles to about 75% by 1917.

About 90% of the anglophones lived within two miles of the Shops, but francophones exhibited less of a tendency to live within walking distance, as only about 82% of them lived within two miles before 1902. As the years passed, many of the francophones, probably taking advantage of the improved service resulting from the electrification of the street railway in 1894, apparently migrated gradually to the developing francophone residential areas east of St. Lawrence Boulevard and stretching away to the north. By 1917, about 45% of this group were living in these areas, all of them being beyond practical walking distance. Thus, only about 55% were left living within two miles of the Shops.

Considering the Shops' workers only, and as indicated on the map (figure 4), Areas 1, 2 and 4 (see figure 3) were strongly anglophone, Areas 5, 8, 9, 10, and 12 to 15 were strongly francophone, and Area 3 (Verdun) had about equal numbers of members of these two ethnic groups. Most of the Shops' anglophones lived in the strongly

anglophone areas and Verdun. Area 2, lying south of the Grand Trunk tracks and generally nearer the Shops than any other area, in the 1902 to 1917 period contained the largest single group of Shops' men (about 40% of the total), including about 57% of all the anglophones. About half of these Area 2 anglophones were skilled metal-working tradesmen, with the balance consisting of carpenters and lower echelon employees. Areas 6, 7 and 11 (on figure 3) were seldom important living areas for Shops' workers during the study period. The first was isolated between two canals and was therefore slower in developing than other near-by areas; the second (Area 7) represented the central business district which was not attractive to working men as a residential area; the third was a high status area isolated from the factory/working-class area to the south by high rents and a high railroad embankment along its southern edge.

From a brief enquiry into the patterns of residential persistence among the Shops' workers during the 1880 to 1917 study period, it appears that 10% to 20% of the machinist and carpenter crews lived in the same dwellings for eight years, with smaller numbers persisting for longer periods.

CONCLUSIONS

It is concluded from this study of the Point St. Charles Shops that, during the study period, anglophones were greatly in the majority among the skilled metal-working tradesmen such as boilermakers, blacksmiths, machinists and brass finishers. Francophones were strongly in the majority among the carpenters, painters and moulders. On the average, skilled, metal-working tradesmen received higher wages than carpenters and painters. Thus, as a result, among the trained tradesmen the average earnings of anglophones were generally higher than those of francophones.

In general, considering the period, the hours of work at the Shops were quite reasonable, amounting, for most job classifications, to 45 to 55 hours per week. A small number of workers regularly worked much longer hours with few, or no, days off, but they represented a very small proportion of the total crew.

The more highly skilled workers generally exhibited higher rates of job persistence. The results of the study gave some indication that persistence rates were somewhat higher before 1902 than after but this may have been a result of the upset caused by the Great War rather than a reflection of a real change in persistence.

About 90% of the traceable anglophones lived within walking distance or 2 miles of the Shops. The proportion of the francophones who lived within walking distance was never this high and, by 1917, it had fallen even lower (to about 55%) as men apparently migrated to the newer residential areas east of St. Lawrence Street.

The presence of the Shops in the Point St. Charles area had a profound effect on how this part of Montreal developed. It became an area which combined manufacturing activity and workingmen's residences. Due to the make-up of the payrolls of the Shops and of other near-by plants, the area contained a fair proportion of both anglophones and francophones, and there was a strong representation of highly-skilled, fully-trained artisans and tradesmen. The community that developed was very stable and had a closely-knit population that was proud of itself and its traditions and looked upon the area as home.

NOTES

¹ A serious fire at the Point St. Charles Shops in 1875 (*The Evening Star*, Montreal, March 9, 1875, p. 2-3) destroyed most of the Grand Trunk Railway's records that had accumulated up to that time. It is unknown what records the company kept between 1875 and 1902, but now none of them is in existence. Why the 1902-1917 accounts payable series was kept is not known.

² Held by Canadian National Railways Record Servicentre, Montreal. Eventually they will be transferred to the Public Archives of Canada, Ottawa.

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CARTOGRAPHIE

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