Canadian Railway Workers and World War I Military Service

Mary MacKinnon

HISTORIANS have generally used recruiting records to study the composition of Canadian armed forces during World War I. This note uses another type of information, a sample of firm-level employee records, to compare the characteristics of blue-collar workers who served in the armed forces to those who did not. An understanding of systematic differences in enlistment rates across ethnic and occupational groups is important for explanations of changes in economic welfare during and possibly after the war, as benefits from working in the tight labour markets of the later war years may have carried over into the 1920s. During the war, governments had to learn, and learn quickly, how to allocate manpower between the armed forces and war industries, and also how to deploy men with appropriate civilian skills within the armed forces. Looking at the kinds of workers who served in the armed forces, the types of units they served in, and the kinds of workers who remained in civilian life gives an indication of how well labour was allocated. British research on recruitment patterns has concentrated on the social class and occupational or industrial background of men in the armed forces, while in Canada and Australia attention has focused mainly on the ethnic and immigrant status of recruits and their rural/urban distribution.[1]

The accuracy and completeness of data collected by the military are always questionable. Some recruits lied about their age and occupation, and officials had little incentive to check the information they were given. During World War I, many immigrants joined the Canadian Expeditionary Force (CEF), but others returned to their home country to enlist, and reservists were called back for service. Unfortunately, we do not know how many followed these routes, as CEF records cannot

[1]The most detailed study of the social composition of the British armed forces is J.M. Winter, *The Great War and the British People* (London 1985). The standard reference on Australian forces is L.L. Robson, *The First A.I.F.: A Study of its Recruitment* (Melbourne 1970).

Mary MacKinnon, "Canadian Railway Workers and World War I Military Service," *Labour/Le Travail*, 40 (Fall 1997), 213-34.

track men not in the CEF.[2] Given Canada's high immigration rate just before the war, this omission is likely more severe than the corresponding gap in the military records of other combatant nations. Even if the recruiting data were complete and accurate, the census data to which information on Canadian military service must be matched are highly aggregated, and were collected in 1911 or 1921. 1912 and 1913 were years of exceptionally high immigration and internal migration.[3] The upheavals caused by the war also make it difficult to use either 1911 or 1921 as reference years. To enrich our understanding of recruitment during World War I, this paper uses a different kind of data source, one that emphasizes the pre and post-war experience of a small group of servicemen.

At the outbreak of war, the Canadian Pacific Railway (with about 60,000 employees) was Canada's largest employer. Analysis of a sample of CPR personnel records permits a comparison of men who served in the armed forces to those who continued to work for the railway. This approach controls for some of the unobserved variations present in aggregate data. For example, differences in enlistment rates by ethnic origin are often attributed to differences in industrial and occupational distributions or in places of residence, but the men in the CPR sample worked in the same places, had related occupations, and were currently or recently employed at the time they joined the military. Studying firm-level records also allows comparison of the workers who enlisted to their replacements, and also of the post-war experience of veterans and non-veterans.

The CPR set up a pension plan in 1903 (the country's first non-contributory company pension scheme) and therefore needed a personnel record system. Summary records for virtually all employees hired from 1903, and those present when the plan began, are kept at Windsor Station in Montréal. No one knows exactly how many record cards there are — I estimate 1.25 to 1.5 million. To the best of my knowledge, this is the only large Canadian industrial firm for which continuous employee records are available for a period of over 70 years. Workers in all branches of the firm — including hotels and steamships — are covered. For purposes of pension eligibility, war service was considered equivalent to being at

[2]In all of the dominions, some native-born men travelled to Britain to enlist or seek a commission. Information on, and interpretations of, recruitment statistics are given in Robert Craig Brown and Donald Loveridge, "Unrequited Faith: Recruiting the CEF 1914-1918," *Revue internationale d'histoire militaire*, 54 (1982), 53-79; C.A. Sharpe, "Enlistment in the Canadian Expeditionary Force, 1914-1918: A Regional Analysis," *Journal of Canadian Studies*, 18, 3 (Winter 1983-84), 15-29; Desmond Morton, *When Your Number's Up: The Canadian Soldier in the First World War* (Toronto 1993). Jean-Pierre Gagnon, *Le 22e bataillon (canadien-français), 1914-1919: Une étude socio-militaire* (Québec 1986) gives a detailed statistical portrait of men in the 22nd batallion.

[3]Jean Pariseau, "La Participation des Canadiens français à l'effort des deux guerres mondiales: démarche de ré-interprétation," *Canadian Defence Quarterly/ Revue canadienne de défense*, 13, 2 (Autumn 1983), 43-8 points out that most of the francophone recruits from the Donnelly-Falher area of Alberta would have been enumerated in Québec in 1911.

work. The company therefore had to keep track of men on military service, and the information was summarized on the staff record cards. Details about the contingent the worker joined, decorations, wounds, and cause of death are usually noted, although at times the information is limited to "joined the army" or "drafted" or "called under [the Military Service Act]."[4]

I have built a database of the detailed work histories of about 9,000 employees hired before 1945. The sample was drawn from CPR workers who began (or spent most of their career) in the Mechanical Department, the branch of the company responsible for the construction, repair, and maintenance of locomotives and cars.[5] By focusing on one large department I was able to build up a sample with reasonably large numbers of workers in a fairly narrow range of jobs.[6] Because I wanted to trace careers, I included workers who left the Mechanical Department — for example wipers who were promoted to firemen (the most common promotion route out of the Mechanical Department). About 80 per cent of workers in the sample on any day were employed in the Mechanical Department. This sample picks up men with skills useful in various branches of heavy industry and construction (such as carpenters, painters, boilermakers, and machinists), as well as some who worked on trains (principally locomotive engineers). I have defined craftsmen's helpers and locomotive firemen as semi-skilled workers, and as unskilled mainly those who worked as labourers or cleaners. Most of the workers above the unskilled level would have belonged to a trade union. There is very little aggregate information about employment at the CPR until the 1920s. For the post-war period, the kinds of jobs covered in my sample were held by about a third of the CPR's workforce. The largest concentrations of workers in the sample were in Montréal, Winnipeg, and Calgary, the cities with the main CPR workshops. There were smaller groups located at divisional points and a sprinkling of workers at train stations across the country.

For virtually all workers the record card lists the birthdate and information on each job held at the CPR (occupation, department, place, wage rate, start and stop

[4]The CPR published Honour Rolls in *Canadian Railway and Marine World*. These listed the name, occupation, and place of work of employees who had been wounded, captured, or killed. Most but not all casualties reported on the record cards appear in the Honour Rolls, often with a lag of a year or more. In this paper I do not use the information on decorations or casualties.

[5]In the summer of 1914, about 15 per cent of the workers in the sample were employed on trains (most as locomotive engineers or firemen, a few as brakemen or trainmen), and at most a handfull worked in each of maintenance of way, bridges and buildings, the shipping service, hotels, and station and office work.

[6]The most common 100 occupational titles make up about 80 per cent of the jobs in the sample. Similar samples could be constructed for other types of enterprises and for other departments of the CPR. Records of banks, secondary schools, and of clerical workers in CPR offices are obvious sources that could be used to study military participation by men from wealthier and more highly educated backgrounds.

date, reason for the job ending). From 1910, nationalities were reported. Why the company then began noting nationalities on record cards is unknown. I do not know whether job applications (but not record cards) listed nationality before 1910. If the company only began asking for information on nationality in 1910 the innovation may reflect increased interest in, or concern about, the ethnic background of the workforce. Another possibility is that a nationality may have helped clerks to distinguish between workers with the same or similar names. Before 1910, for example, the company hired a minimum of seventeen workers named William Thomas. The CPR would have been hiring at least 20,000 new employees per year in this period, so that the problem of keeping track of workers must have become rapidly greater.[7] For workers hired before 1910, a nationality corresponding to the post-1910 CPR definition can usually be inferred from the worker's name (one or more forenames are given as well as the surname).

The CPR records are in six sets of alphabetically arranged microfiche. The company threw out detailed personnel files and microfilmed the record cards of deceased and long departed employees roughly every ten years. The earliest group of records is for workers who left the company by the 1930s, and the most recent includes current pensioners and the recently deceased. I sampled runs of 20 microfiche cards, separated by 400 cards, for the first (and largest) group of records, and took alphabetically matched samples from the other 5 sets.[8] The sample

[7]The record cards were used to check the previous record of rehired workers. Reported nationalities often did not correspond to nation states. European immigrants were often listed as Hebrews, Ruthenians, Galicians, Macedonians, etc. Immigrants from the British Isles were usually classified as English, Irish, Welsh, or Scottish. Workers with francophone names are normally listed as French Canadian (occasionally French), while the term Canadian was reserved for native-born non-francophone employees. Naturalized Canadians were specified as such. The proportion of new hires who were apparently neither anglophone nor francophone was quite stable before 1910, at about a quarter of new hires, so the company was not reacting to a sudden and recent change in the composition of its workforce.

[8]I continued my samples slightly beyond the chosen alphabetic ranges for certain types of workers: those first hired before 1905, workers with long careers at the CPR, workers present at the time of a strike, women workers, and workers with military service in World War I. Thus the full sample is somewhat larger than the "alphabetically balanced" sample. The full sample has been used to create Tables 1 and 2 in this paper. Virtually the same results (with a smaller number of observations) are obtained using only the records in the alphabetically balanced sample. The 1900s roll is the earliest set of microfiche created. It includes workers who left by about 1930. The Red and White series mainly has records for workers hired in the 1940s and 1950s who left by the late 1950s. The Index Roll mainly includes the records of long service workers who left (or in the case of pensioners died) by the late 1960s. Records for workers who died on the job or in World War I are generally found in the Index Roll. The Deceased Roll is largely a continuation of the Index Roll including pensioners who died up to the 1980s. The Terminations series has few records — it seems to include odd records omitted earlier. The most recent set of records is the Pension Jackets series, which includes

includes nine alphabetic ranges of surnames, starting with the letters C,D,G,H,L,M,P,S, and T.[9] I estimate that my sample includes 3 to 5 per cent of all employees hired before 1945 in the relevant occupations. Two hundred and twenty seven men in the sample are recorded as having left work to join the armed forces (about 2 per cent of all CPR workers with military experience in the war); 165 of them returned to the CPR. This corresponds closely to the proportion of all CPR employees in the relevant occupations with military service returning to the company after the war. Another 200 with war service were hired or rehired in the later war years or the post-war period.[10] No doubt many others left the company for good before or during the war and later saw military service, but once their link with the CPR was permanently severed, the company could not record further information about them. As will be discussed below, workers had an incentive to inform the company if they resigned to volunteer for military service. Obviously my sample is small, and is drawn from an unusually large firm which adopted many bureaucratic labour practices at a relatively early date. Until further research is undertaken, one can only speculate about the extent to which the sampled CPR workers are representative of working-class Canadians.

The CPR and the War Effort

The initial impact of the war on the Canadian economy was to deepen the depression which had begun in late 1913. The new transcontinental railways, which were still constructing their main lines, were hit much harder by the decline in business than was the CPR. Figure 1 shows annual figures for total Canadian railway employment (squares) and quarterly data for the number of workers in the CPR Mechanical Department sample (crosses). Total Canadian railway employment fell

---

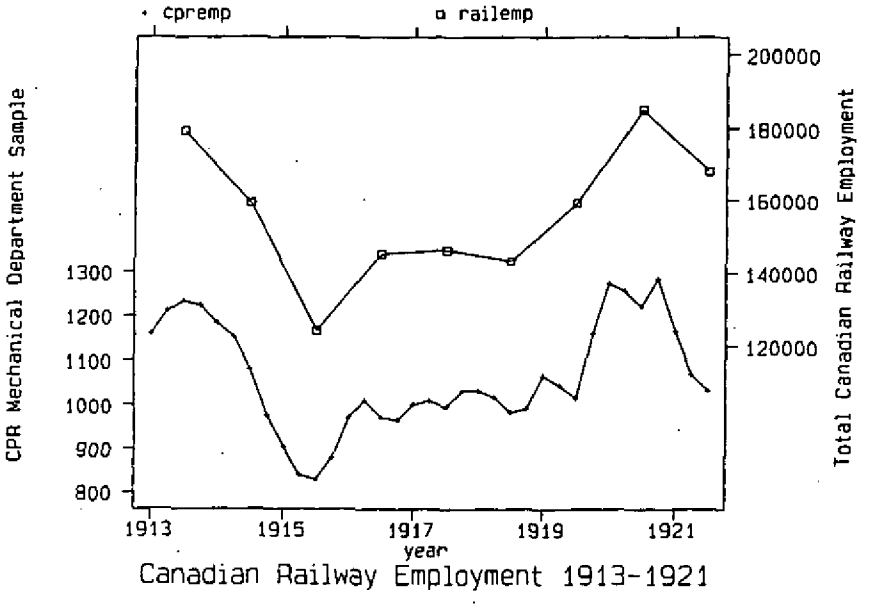
record cards (and sometimes other information such as job applications and letters of reference) for recently deceased pensioners.

[9]The company permitted me to include only records for pensioners deceased by May 1992. At most a handful of employees who were at work before 1919 and would otherwise have been in my sample were still alive at that time. Given the tendency of surnames of particular ethnic groups to be concentrated in certain ranges of the alphabet, my sample may not be a fully accurate reflection of the ethnic distribution of CPR employees in the sampled occupations but any other method of sampling would have been prohibitively expensive. This possible concern poses no problems for the research presented in this paper. Bruno Ramirez used CPR record cards to construct a sample of Italian workers employed in Montréal. See Bruno Ramirez, "Brief Encounters: Italian Immigrant Workers and the CPR 1900-1930," *Labour/Le Travail*, 17 (1986), 9-27.

[10]Most returned or were hired between 1918 and 1920, and I concentrate on these men. A few recruits were discharged and returned to work within weeks of enlistment (usually because they were unfit or under-age), and a few more were invalided out of the army after overseas service. Some men left the CPR, joined the army at an unspecified date, and were rehired around the end of the war. There are isolated cases of veterans returning to the CPR only in the 1940s.

Canadian Troops leaving Windsor Station, Montreal. *Photo courtesy of The CP Rail Archives.*

Figure 1



by about 30 per cent between 1913 and 1915.[11] Employment levels for workers in the sample dropped by about the same percentage as for the industry as a whole. From late 1915 employment levels recovered sharply, and then stabilized. There was another burst of employment growth in 1920, when the pre-war employment peak was (briefly) surpassed.

As was common throughout Canadian industry, the railways vigorously supported the war effort. Their business was much affected by the war, since both rail and shipping services were vital for moving troops and supplies. In 1914 railway workshops were a substantial and technically sophisticated part of the Canadian metal manufacturing industry. It is no surprise that the CPR soon converted car and locomotive shops to produce shells, and that the company lent

[11]Alan G. Green, "Growth and Productivity Change in the Canadian Railway Sector, 1871-1926," in Stanley L. Engerman and Robert E. Gallman, eds., *Long-Term Factors in American Economic Growth* (Chicago 1986), 779-817. These totals exclude most construction workers building new lines, who were employed by contractors, not directly by the railway companies.

technical experts to assist government efforts to boost munitions productions. As the war progressed, most railway shops reverted to repairing and building railway equipment, with munitions production a minor part of their activities. The railways were active in encouraging donations to the Canadian Patriotic Fund and the purchase of Victory Bonds. The CPR set a much-publicized example by encouraging employees to donate a day's pay to the Patriotic Fund.[12]

In the mid-19th century, railways employed unprecedentedly large numbers of employees, and it was essential that workers followed regulations precisely and punctually. The army was the obvious example of an institution that organized and controlled large numbers of men, so railway employment was patterned on military service.[13] Uniforms were styled on military uniforms and terminology was also derived from the army. A man who left work without notice, for example, was said to have "deserted the service." With the outbreak of war, it seemed obvious to senior managers that railwaymen should enlist, and that the company should encourage their patriotism. The company's interest in the military careers of their employees encouraged accurate record keeping.

Almost immediately, the CPR decided to pay employees on active service. Permanent employees would be eligible for six months pay, with the pay cheque usually sent to the serviceman's wife or mother. The question of which volunteers should be given leave with pay was one of the few personnel issues dealt with in the president's correspondence. Sir Thomas Shaughnessy ruled that "a man can scarcely be considered a permanent employee who has not been more than six months in the service, or whose position is such that he would be relieved from work, in any event, before Winter sets in."[14] Workers were promised re-employ-

[12]W.K. Lamb, *History of the Canadian Pacific Railway* (New York 1977), 279-287; David Carnegie, *The History of Munitions Supply in Canada* (London 1925), 45-7, 131, 206; "The Railroads of Canada and the War," *Railway Age Gazette*, 62, 25 (22 June 1917), 1299-1306. Desmond Morton and J.L. Granatstein, *Marching to Armageddon: Canadians and the Great War, 1914-1919* (Toronto 1989), 23. Officers and employees contributed over $140,000 to the Canadian Patriotic Fund in September 1914. National Archives of Canada (NAC), Shaughnessy Letterbook #107, reel M-3065, letter to W.T. White, 19 October 1914. CPR employees making shells and cartridges are included in the Mechanical Department sample.

[13]Walter Licht, *Working for the Railroad: The Organization of Work in the Nineteenth Century* (Princeton 1983); Frank McKenna, *The Railway Workers 1840-1970* (London 1980), 30-2.

[14]NAC, Shaughnessy Letterbook #107, reel M-3065. The earliest letters specifying that full pay would be allowed for men in Canadian or British forces are dated 8 August 1914 and were sent to senior officials in each region. Definitions of permanent employment, and decisions about payments to employees who would have been demoted or laid off had they remained at work in late 1914 were issued later in the year. The quotation comes from a letter of 7 September 1914 to Mr. Ogden. The president demanded that precise information about the man's unit be recorded to ensure that volunteers had been accepted and were on active service. Reservists were not eligible for pay "firstly because they are always subject

ment in a position at least as good as the one they had left, while those who stayed at work were expected to "in so far as is possible, perform their work without extra compensation as a contribution to their Country."[15]

Over 11,000 men from the CPR joined the military, and about 10 per cent were killed or died on active service. About 4,000 had enlisted by the end of 1915, over 7,000 by the end of 1917.[16] From 1915, Canadian railway workers were recruited for overseas service in railway construction units, and from 1917 they were also sought to operate railways in France and Belgium.[17]

Despite the financial problems of the other Canadian railways (or perhaps partly because of the massive expansion in capacity on the eve of the war, which was related to their precarious position), Canadian railways were able to handle wartime traffic without undue strain, and the CPR does not seem to have been excessively troubled by labour shortages. Shaughnessy did complain in early 1917 that "the railways have been seriously embarrassed during the bad weather ... because of their inability to get sufficient labour to cope with snow. Then, too, the efficiency of the train service has been reduced by reason of the enlistment of so many of our best trainmen," but this was an isolated complaint. The president was much more concerned about difficulties in obtaining coal. It appears that no attempts were made to discourage key employees from volunteering, nor were

---

to call, and secondly, because we have no means of knowing whether they are on the fighting lines or not." See Shaughnessy to Edmund Osler, 21 November 1914. In the later years of the war, "permanent" was defined to mean that the employee had been working for the CPR in August 1914. NAC reel M-3069, Shaughnessy Letterbook # 112, letter from the president's secretary to Pte. L.W. Hartman, 19 September 1918.

[15]Further information on how Canadian railways treated employees on active service is given in "The Railroads of Canada and the War," 1301-1302. The quotation comes from NAC, Shaughnessy Letterbook #107, reel M-3065, letter to George Bury, 21 August 1914.

[16]*Canadian Railway and Marine World*, August 1920, 437 for the total; to end of 1915, NAC, Shaughnessy Letterbook #109, reel M-3067, letter to J. Castelle Hopkins, 28 December 1915; to 1917, Shaughnessy Letterbook #112, reel M-3069, letter to Victor Ross with article written for the *Globe*, 19 December 1917. I suspect that the total to 1917 is an underestimate — if not, the CPR supplied an unusually large proportion of its servicemen in 1918. For the CEF as a whole, about a quarter of enlistments were in 1918; G.W.L. Nicholson, *Official History of the Canadian Army in the First World War: Canadian Expeditionary Force, 1914-1919* (Ottawa 1962), 546.

[17]Information on railway troops is given in "Railroads of Canada and the War," 1300-1; A.H. Kendall, "The 58th Broad Gauge Operating Company (Canadians), Organization and Work Overseas," *Canadian Railway and Marine World* (January 1920), 1-4; Nicholson, *Canadian Expeditionary Force*, 486-8; E.A. Pratt, *British Railways and the Great War: Organisation, Efforts, Difficulties and Achievements Vol. II* (London 1921), 619, 630-2; Peter Wilson, ed., *Canadian Railway Troops During World War I: 1st Battalion Canadian Overseas Railway Construction Corps November 1917-April 1918* (Campbellford, ON 1995).

many employees exempted from service under the Military Service Act.[18] As will be discussed below, there were substantial changes in the demographic composition of employees in the Mechanical Department sample, but the company does not appear to have hired large numbers of low-quality workers in the later war years.

In other countries, railway workers were seen as vital war workers and restrictions were placed on their recruitment. From September 1914 British railwaymen had to present a certificate from their employer stating that their services could be spared before the recruiting officer could accept them, and under conscription many skilled railway workers were considered to be in essential occupations. In Australia there was also concern about enlistment of skilled railway workers by late 1915, and state railways began to discourage some men from volunteering.[19]

After the war, roughly three-quarters of the CPR's surviving servicemen returned to work. Not surprisingly, workers with mainly firm-specific skills (locomotive engineers, conductors, firemen, and trainmen) were the most likely to come back, with shop men not far behind, while only about half of surviving maintenance of way employees returned. For new hires, the company gave preference to returned men, and hired over 13,000 (most in 1919 and 1920). The total number of new hires in this period is unknown; in my sample half the men (aged 18 to 44) first hired in 1919 were veterans.[20]

The CPR Sample: Recruits and Civilians

Some features of the sampled CPR recruits (Table 1) broadly parallel the aggregate characteristics of the CEF, principally the timing of recruiting, the average age of recruits, and the high proportion of British volunteers. The last row of Table 1 shows a rush to the colours in 1914 and a substantial flow of volunteers in 1915 and 1916. In the five wartime months of 1914, an average of nine men per month volunteered, compared to about five per month in 1915 and 1916. The number of recruits plummeted in 1917 but conscription in 1918 succeeded in dredging up more men. It is clear from the record cards that most of the 1918 recruits were

[18]A few of the sampled record cards have a stamp noting that the worker had been exempted from military service — why the exemption was granted was not stated.

[19]Pratt, *British Railways*, 349. The proportion of workers who left the British railways was well below the average for all industrial workers. See Winter, *The Great War*, 36, 45; Robson, *The First A.I.F.*, 55.

[20]Lamb, *History of the CPR*, 286. Figures for the proportions of men in different branches of the CPR who returned are taken from "The Canadian Pacific Railway's War Veterans," *Canadian Railway and Marine World* (August 1920), 437. Roughly 30 per cent of the male population in this age range were veterans. Winter, *The Great War*, 75, and M.C. Urquhart and K. Buckley, *Historical Statistics of Canada* (Toronto 1965), A32-39. In my sample, only 3 of the newly hired veterans were 45 or over.

conscripts. At the beginning of the war, British-born CPR employees were far more likely to volunteer than the Canadian-born. Anglophone-Canadian employees may have been little more likely to volunteer than francophones in 1914, although at least some of the large fraction of volunteers who can be identified only as "Anglos" would have been Canadian-born.[21] English Canadian enlistment definitely picked up in 1915 and 1916, while French-Canadian volunteers continued to be conspicuous by their absence. The effects of conscription on the ethnic mix of recruits are very clear — Canadians of both language groups, plus some Europeans, were compelled to join the CEF.

The average age of CEF recruits was 26, virtually identical to the average for recruits in the CPR sample.[22] The age of recruits from the CPR fell over time. At the beginning of the war, few were very young men; in 1914 over two-thirds were at least 26, but in the last two years of the conflict, about two-thirds were under that age. This trend is not surprising: by 1917 virtually all the older men who wanted to join up already had, and conscription targeted the young.

Recruiting in Ontario in 1914 was relatively light. From 1915 to 1917, however, almost twice as many recruits came from Ontario as employees of military age worked there. Conscription helped to even out regional disparities in recruiting, but the proportion of recruits coming from the large cities remained almost constant.[23]

The workforce from which the men in Table 1 were drawn looks much less like the Canadian population of military age than the men in Table 1 look like the CEF. Table 2 shows the characteristics of men aged 17 to 40 in the Mechanical Department sample employed on selected dates. One of the main advantages of using firm-level records such as those of the CPR is that one is comparing those who went to the war to those who were at work and could have gone to war at the same time.[24] Any errors that creep into Table 1 will also appear in Table 2, since the same procedures were followed for coding data for all workers. For example, if some francophone immigrants from France or Belgium were misclassified as French Canadians, the error would occur in both tables — too many men with military service will be listed as French Canadian, and too many men at work will also be listed as French Canadian. Similarly, if a francophone worker was misclassified as an anglophone (because he was hired before 1910 and had a name like

[21]Virtually all the workers listed as "other Canadians" in Tables 1, 2, and 4 had Anglo-Saxon or Celtic names. In Table 1 the percentage of workers who can be identified only as "Anglo" drops from 1916 because by then few pre-1910 hires were enlisting.

[22]Morton, *When Your Number's Up*, 279.

[23]In both 1916 and 1918 over 60 per cent of military recruits in the CPR sample left jobs in Montréal, Toronto, London, Winnipeg, Moose Jaw, Calgary, or Vancouver.

[24]By contrast, if one compares CEF records to the 1911 population census, all the 1912-1913 immigrants are missed, and those who were in Canada in 1911 but returned to Europe or moved to the US before the war are incorrectly included.

Paul Robert Carmichael), the error would also occur in both tables.[25] If there are "too many" or "not enough" workers of any ethnic/national group in my sample relative to the CPR workforce as a whole, the over or understatement will have the same effect in both tables.

Table 1
Characteristics of CPR Employees Enlisting

	1914	1915	1916	1917	1918
Age			% distribution		
<21	11	13	24	24	15
21-25	22	33	19	38	52
26-29	33	19	25	19	21
30-34	13	19	15	10	6
35+	20	17	17	10	6
Ethnicity					
'Anglo'	27	28	17	14	10
British immigrant	60	56	61	62	13
French Canadian	2	0	0	10	19
Other Canadian	4	11	17	5	38
European	7	6	5	0	12
Occupation Group					
Unskilled	18	20	20	14	10
Semi-skilled	47	48	44	52	44
Skilled	24	22	19	19	35
Apprentice	7	9	12	10	8
Months worked before joining military					
Median Recruit	31	37	30	22	20
Bottom Quarter	22	23	10	8	10
Top Quarter	54	54	50	75	62
Number enlisting	45	54	59	21	48

I know that at least 15 per cent of men in Table 2 employed in July 1914 saw military service. Whether the total proportion was above or below the Canadian average of about one third is unknown, given that I lose track of men who

[25]While this hypothetical French Canadian Robert Paul would likely have been misclassified, workers with names such as Henri Paul or Jean Robert Carmichael would have been classified as French Canadian.

permanently left the company and did not immediately join up. In early 1920 (the peak period for the employment of veterans), only about 20 per cent of all workers of military age had served. As with enlistment patterns, there were sharp differences in the proportions of veterans among workers of different ethnic groups. Roughly 40 per cent of British immigrant and anglophone-Canadian workers were veterans, but fewer than 10 per cent of the French Canadians.[26]

Brown and Loveridge and Granatstein and Hitsman stress that French Canadians were more likely to live in rural areas than English Canadians and argue that since recruiting efforts were concentrated in cities, francophone enlistment rates were bound to be lower.[27] This explanation is irrelevant for men working for the CPR. It is possible that more of the French-Canadian workers were married, which is another argument used to explain lower recruiting rates, but it is more likely that differences in attitude were the main factor keeping French Canadians out of the CEF.[28]

Table 2 shows how much the ethnic composition of the workforce of military age changed during the war. Not only did large numbers of British immigrants leave the CPR to volunteer for military service, they were rarely replaced by other British immigrants, probably because throughout the economy British workers were enlisting at a disproportionate rate. There was a modest increase in the proportion of English Canadians at work by 1916, but the growth in the employment of French Canadians was much more dramatic.[29] In the years just before the war, only about a third of the sampled employees in Québec were French Canadian. By 1916, about half were. This shift highlights the absence of French-Canadian volunteers evident in Table 1. The increased French Canadian presence within Québec was maintained after the war — in the mid to late 1920s, about 45 per cent of sampled Québec employees were French Canadian.

[26]Men aged 19 and less than 44 in 1920 are defined as of military age during the war. Only 9 veterans employed by the CPR in 1920 were over 44.

[27]Brown and Loveridge, "Unrequited Faith," 64; J.L. Granatstein and J.M. Hitsman, *Broken Promises: A History of Conscription in Canada* (Toronto 1977), 29.

[28]Morton and Granatstein, *Marching to Armageddon*, 33; Morton, *When Your Number's Up*, 62.

[29]Some of the nationwide increase results from a rise in the share of the workforce in Québec, from about 30 to a maximum of 35 per cent.

Table 2
Characteristics of Male CPR Workers Aged 17<41

Employed on:	15 July 1914	1 July 1915	1 July 1916	1 July 1917	15 March 1918
Age			% distribution		
17<21	7	5	6	5	8
21-25	18	14	19	17	14
26-29	23	23	18	17	16
30-34	27	30	27	28	28
35<41	25	27	30	33	34
Ethnicity*					
'Anglo'	29	31	25	25	23
British immigrant	25	24	16	16	18
French Canadian	11	11	20	19	19
Other Canadian	8	9	9	12	14
European	24	22	28	26	22
Occupation Group**					
Unskilled	19	21	15	10	11
Semi-skilled	35	31	37	41	42
Skilled	38	41	42	44	41
Apprentice	3	3	2	2	2
Months worked to date					
Median Worker	39	53	49	54	52
Bottom Quarter	18	28	15	15	16
Top Quarter	83	101	95	103	103
Number of workers	813	584	667	647	663

Notes: *Ethnic distributions do not add to 100 per cent because a few employees were American, Australian, West Indian, Chinese, Japanese, or their nationality was unknown. **Occupational Distributions do not add to 100 per cent because a few employees were in managerial or clerical jobs, or their occupation group was unknown.

The fraction of European born workers remained fairly stable even though few of them enlisted. Many eastern and southern European immigrants spent a few weeks or months working at the CPR.[30] Since the war cut off immigration, the number of new arrivals looking for such work probably fell. In addition, in the later

[30]Bruno Ramirez, *On the Move: French-Canadian and Italian Migrants in the North Atlantic Economy, 1860-1914* (Toronto 1991), 88-9.

war years the CPR appears to have been most concerned to fill the more senior manual jobs; the proportion of workers in unskilled jobs dropped considerably and only recovered in the 1920s. The company did not hire Germans during the war, and few other European immigrants were hired or promoted into the more responsible positions. They either did not possess, or were thought not to possess, the necessary skills. The native born — both anglophone and francophone — were in a much better position to fill jobs the British were leaving.

As the men going on military service were getting younger, the CPR workers on the job were older. In the summer of 1914, about half of the workers of military age were 30 to 40, and about a third of the volunteers were aged 30 to 40. By 1918, over 60 per cent of the workers in Table 2 were aged 30 to 40, while only 12 per cent of the men in Table 1 were in that age group. This shift reinforces the fact that only a subset of workers of military age were likely to serve.

Table 2 shows substantial changes in the composition of the male workforce of military age in the later years of the war. Not surprisingly, the share of all workers who were men of military age also fell, especially in 1917 and 1918. The CPR increased its hiring of boys and older men, and, to a limited extent, hired women. In 1917 and 1918 about 1 per cent of the workers in the Mechanical Department sample were women. Most of these women worked as car cleaners — unfortunately there were so few women in my sample that I can say little about them. As in boom periods before the war, promotions were common from 1916. For the Mechanical Department sample as a whole, almost half the unskilled workers present in early 1916 and also employed in early 1918 were by then in semi-skilled jobs, and about 15 per cent of the semi-skilled had moved up to skilled jobs.[31]

Men with the highest paying manual jobs were generally less likely to enlist than the lower paid. For any age group, there were fewer skilled men among the recruits than the men at work. Given the shift in the age distribution of recruits, the increase in 1918 in the number of men leaving skilled positions to enlist is striking. While wartime shortages of qualified workers made it more common for very young men to hold skilled jobs, the effect of conscription was important. The fact that in labour-scarce 1918 skilled workers were drafted underlines the primitive state of Canadian manpower planning.

Although the economic slump of 1914 is often credited with precipitating the rush to the colours of the first months of the war, the employees in the CPR sample who volunteered in 1914 were mainly stable employees at low risk of layoff.[32] In

[31]These changes in the workforce are discussed in Mary MacKinnon, "The Great War and the Canadian Labour Market: Railway Workers 1903-1939," in George Grantham and Mary MacKinnon, eds., *Labour Market Evolution* (London 1994), 205-24. For more information on women's employment in Canadian railways during the war, see "The Railroads of Canada and the War."

[32]Brown and Loveridge, "Unrequited Faith," 56-7; J.H. Thompson, *The Harvests of War: The Prairie West, 1914-1918* (Toronto 1978), 24-5.

1914, half the workers who were laid off had worked for the CPR for less than eighteen months, while fewer than a quarter of those who volunteered for military service had so little CPR work experience. 1914 volunteers had worked for the company for almost as long as the average man of military age in the sample.[33] 1915 volunteers generally also had a stronger work attachment to the company than men leaving for other reasons. As Figure 1 shows, in the face of a severe depression, the CPR cut its workforce drastically over the winter of 1914-15. The information on the distribution of months worked in Table 2 reinforces the fact that the laid-off workers were mainly the recently hired, as the CPR work experience of remaining employees increased substantially. No doubt some laid-off men did later join up, but most of the volunteers I can trace had enough seniority for their jobs to be safe throughout the depression. For them a threat of unemployment was of little relevance as a recruiting agent.[34]

In the later war years, although employment levels recovered somewhat, average work experience of the men in Table 2 hardly dropped. The employees who had survived the layoffs of 1914-15, and had not volunteered, formed a very stable core workforce. This largely offset the negative effect on job durations of the inflow of new men from 1916. Thus in the summer of 1916, while the dividing line between the lowest and the second quartile was about a year less than in the summer of 1915, the median worker's time with the CPR had fallen by only four months. Traditionally the later war years are described as a period of extremely high labour turnover, but at the CPR only newly hired workers were footloose.

In the last two years of the war, as the age of most recruits fell, their average work experience with the CPR also decreased. Even so, men going on military service had generally worked much longer than men leaving for other reasons.[35] It is therefore not appropriate to think of enlistment as a substitute for regular quits and layoffs.

The vast majority of CPR employees who went on military service (almost 90 per cent) enlisted in the CEF (Table 3). Except in 1917, the largest proportion went

[33]I show the median, and cutoffs for the top and bottom quarter of the distribution, rather than the mean and standard deviation. Distributions of time worked are quite skewed, with a small number of very long-service workers.

[34]This is consistent with Morton's claim that "most of the men who joined in 1915 left good jobs behind them." See *When Your Number's Up*, 51. The measure of seniority that I am using — total months worked in all jobs at the CPR — is not identical to the measure of seniority that the company would have used in making decisions about layffs. For example the company would not have counted employment before a quit, or (for strikers) before the 1908 strike.

[35]From 1916 to 1918, the median worker of military age leaving the CPR for a reason other than going on military service had worked six or seven months. In 1914 and 1915 the median was about two years.

into the infantry and there was also a steady flow into the artillery.[36] Workers of all types and ages were recruited by the infantry and artillery. To a limited extent, late in the war, men from the CPR were deployed by the military in ways that made use of their workforce experience. In 1916 and 1917 several employees volunteered for the railway troops; most of them were firemen or locomotive engineers. The RFC and RAF took only skilled workers and apprentices (mainly fitters and machinists) from the CPR. It would have been essential for the flying services to recruit tradesmen who could work with wood and metal.

Very few British immigrants are recorded as having joined the BEF or Royal Navy. If for the country as a whole, as at the CPR, almost all British immigrants enlisted in the CEF, it seems unnecessary to worry that Canadian military records miss large numbers of recent arrivals from the UK. There was a small but steady flow of men returning from the CPR to Italy to undertake military service, and also isolated cases of reservists returning to France. Few Europeans enlisted in the CEF before the introduction of conscription; it is important to remember that some served in other contingents.[37]

Veterans and Post-War Employment

The company kept its promise to rehire veterans. About 60 per cent of the men in my sample who joined the military returned at the end of the war (Table 4, column 1), with men who went to war in 1917 or 1918 most likely to return. Since the workers who enlisted late in the war were generally in their early twenties, the rehired veterans were also a youthful group — in the spring of 1920, about three-quarters of them were under 35. The returning veterans usually settled down for a long career with the CPR, working, on average, for about 25 more years. Their subsequent careers at the CPR were about the same length as those of men who had stayed out of the war (column 4). Among long-service workers, the probability of eventually being pensioned was unaffected by war service.[38]

[36]Unfortunately, for about a quarter of the men in the CEF, further information about their unit of service is not available. The workers grouped in the "Other" category served in a wide variety of units, including the CAMC, the CASC, mounted rifles, Canadian engineers, and tank battalions.

[37]Pariseau, "La participation des Canadiens français," 45, shows that over 10 per cent of recruits from Donnelly-Falher served in the French or American armed forces.

[38]The median rehired veteran present on 1 March 1920 worked another 300 months, with the top quarter staying for at least 398 months and the bottom quarter for less than 53 months. For information on CPR pensioners, see Mary MacKinnon, "Providing for Faithful Servants: Pensions at the Canadian Pacific Railway 1903-1939," *Social Science History* (forthcoming 1997).

Table 3
Enlistment of CPR Employees: Contingents

	1914	1915	1916	1917	1918
			% distribution		
CEF (total)	84	91	96	75	84
Infantry	42	64	45	33	52
Artillery	11	8	11	0	5
Railway Troops	0	0	5	33	0
Other	21	6	5	13	7
Unknown	26	22	33	20	36
Royal Navy/ Royal Canadian Navy	4	0	2	10	2
Royal Air Force/ Royal Flying Corps	0	0	0	10	8
Canadian Militia	7*	2	0	0	0
British Expeditionary Force	0	4	0	0	0
US Forces	0	0	0	4	4
French Forcea	2	0	0	0	0
Italian Forces	2	4	2	0	2

Notes: CPR records usually list only initial unit of military service. Two men in the sample are recorded as having been officers. One volunteered in 1915 and was a lieutenant in the artillery, the other volunteered in 1916, served in the infantry, and was commissioned in 1918.
*Two of the three men who served in the militia in 1914 volunteered for the CEF in 1915. One served in the infantry, the other in the artillery.

Most of the men from the CPR who went on military service and survived in good health returned. They generally went back to their old job, and to their old workplace, and stayed there, often for the rest of their working life. In that sense World War I looks like it was simply an interruption to their previously established career, but they did lose relative to men who remained civilians. Veterans came home to discover that others had been promoted to fill the gaps, and the benefits of a wartime promotion persisted through the 1920s. Only 13 per cent of rehired veterans who had gone to war from semi-skilled jobs were in skilled or managerial jobs in early 1920. Forty-three per cent of the non-veterans at work in March 1920 whose first wartime job had been semi-skilled were then in skilled jobs. For those present in March 1925, the proportions who had moved up (relative to a wartime semi-skilled job) were 30 per cent and 41 per cent. At the CPR the later war years were the last of a series of boom periods when there were many internal promotions. Returning veterans (and the company) could not have foreseen that the next period

Table 4
Employment and Hiring of Male Workers: July 1918-December 1920

	Returning Veterans[a]	Newly hired Veterans[b]	Newly hired Non-Veterans[c]	Non-Veterans at work, 1 March 1920[d]
Mean Age	29	28	30	32
Ethnicity				
'Anglo'	18	1	5	21
British immigrant	45	46	30	21
French Canadian	6	29	31	23
Other Canadian	21	16	15	10
European	5	6	12	15
Occupation Group				
Unskilled	11	32	39	11
Semi-skilled	52	47	31	30
Skilled	27	21	29	51
Apprentice	8	0	1	4
Months worked[e]				
Median Worker	264	5	9	299
Bottom Quarter	26	2	2	76
Top Quarter	395	18	49	367
Number hired or employed	131	142	272	304

Notes: [a]Previous job ended because joined military
[b]First job with CPR, aged 19<43 when hired
[c]First job with CPR, aged 19<43 when hired
[d]Non-veterans, employed at some time during World War I and at work on 1 March 1920, aged 19<40 on 1 March 1920
[e]For returning veterans, months after return; for new hires, total time worked; for non-veterans at work in 1920, months from March 1920 to departure

of rapid growth would be delayed until the 1940s. Thus I would expect resentment of non-veterans by veterans to have increased over the 1920s as a prolonged period with few promotion possibilities became reality.[39]

[39]A different set of tensions that emerged in the 1940s is documented by Rosenfeld, who conducted an oral history of CNR workers in Allandale, Ontario. He reports great resentment in the early 1940s of newly hired employees by long-serving workers. I suspect that the senior employees, who had experienced the slow to non-existent promotion paths (and frequent layoffs) of the 1920s and 1930s, envied the younger workers hired in a boom period.

The veterans first hired by the CPR around the end of the war appear to have been selected on the basis of their military service, not their aptitude for a career on the railways. Few of the men who went off to the war from the CPR (and fewer of those who came back) were unskilled workers, while about a third of the veterans hired in 1918-20 began in unskilled jobs. New hires typically left the company within a year, but the newly hired veterans yielded exceptionally few long-term employees. Only a quarter stayed for as long as eighteen months while the longest serving quarter of newly hired non-veterans stayed about four years. Almost all the newly hired veterans stayed for only a short time and then quit; most had left before the onset of the economic downturn in late 1920.[40] Unlike the reemployed veterans, the newly hired veterans appear to have been restless. Explanations that rely on the unsettling effects of the war on many veterans — most obviously on their health and their ability to readjust to civilian life — do not seem very promising, as rehired veterans generally settled back into their old jobs. There may have been a serious mismatch between the abilities and the kinds of jobs the newly hired veterans were given, or they may have had different expectations than did other new employees about what type of job was worth hanging onto. Perhaps veterans, having been out of the labour force, and usually out of the country, were less likely to understand that relative to the rest of Canadian industry in 1919 and 1920, railway wages were high and working hours short. Whatever the explanations for this result, the veterans hired around the end of the war were less able or willing to adjust to their new environment than new employees who had not been in the military.

By 1919, the characteristics of workers in the CPR sample had changed considerably. The sharp drop in employment in 1914-15, and the gradual recovery thereafter, meant that workers with little job experience at the CPR were a much smaller fraction of the workforce after the war than before it. In the summer of 1914, over half the workers in my sample had worked for less than four years. In the spring of 1919, the median worker had spent over six years at the CPR. Why might this be important? If by the end of the war a substantially greater proportion of employees thought of themselves as long-term workers, quite possibly with a lifetime career at the company ahead of them, than before it began, we might expect to see different attitudes and bargaining relationships emerging. Emphasis on high turnover rates of new hires in the later war years (which was true at the CPR) obscures lengthening job attachments of a large proportion of the employees during and after the war. There is no shortage of explanations for worker militancy in the

---

In the 1940s the new workers were in some senses a threat from below. In the 1920s, promoted non-veterans were an obstacle above. See Mark Rosenfeld, "'It Was a Hard Life': Class and Gender in the Work and Family Rhythms of a Railway Town, 1920-1950," Canadian Historical Association, *Historical Papers* (1988), 267-8.

[40]For further information on job durations and reasons for separation, see Barton Hamilton and Mary MacKinnon, "Quits and Layoffs in Early Twentieth Century Labor Markets," *Explorations in Economic History*, 33 (1996), 346-66.

late war and immediate post-war period, and for industrial peace in the railway industry in the 1920s.[41] I have no evidence on attitudes of CPR employees, and how these were related to length of employment. I simply wish to point out the noticeable changes in the distribution of employment durations during the war. If the effect of the 1914-15 depression on other large firms was similar to its effect on the CPR, the proportion of long-term employees at many large firms could have risen sharply.

Conclusions

This paper has examined the behaviour of a group of mainly urban workers of military age. Almost all of the men in my sample who served in the military did so in the CEF. British immigrants rarely appear to have returned to Britain to enlist, but until 1918 the few continental Europeans who are known to have served were usually reservists. If these findings hold more generally, estimating military participation rates from CEF records is quite accurate for the British and Canadian born, less so for European immigrants.

Ethnic differences in enlistment rates for the sampled CPR employees were marked. Until 1918 the British born were always over-represented, usually by a wide margin. English-Canadian enlistment increased markedly from 1915, while few French-Canadian CPR employees volunteered. After the war, British and anglophone Canadian workers were about equally likely to be returned men, and roughly four times more likely to be veterans than were francophone workers.

The CPR Mechanical Department sample yields considerable information about the labour market experience of recruits. Fear of impending unemployment seems to have been of little importance in inducing employed workers to volunteer. Most recruits in 1914-15 had enough job seniority to be at low risk of layoff. In 1916-17 men who enlisted had generally been employed rather longer than employees who left for other reasons, which suggests that military service was not drawing in workers who were dissatisfied with their job and for whom volunteering was a close substitute for quitting.

Relatively few skilled workers enlisted, at least partly because men in skilled jobs were more often in their thirties and thus at an age when they were less likely to volunteer. Early in the war, the military appears to have done little to place recruits where their civilian skills could be used. In 1917 and 1918, the allocation of manpower became more sophisticated, and firemen, locomotive engineers, and machinists from the CPR were likely to join contingents that could use their occupational skills.

[41]For more on job durations at the CPR, see MacKinnon, "Great War," 209-14. For a recent discussion of labour relations on the railways in the 1920s see Allen Seager, "'A New Labour Era?': Canadian National Railways and the Railway Worker, 1919-1929," *Journal of the Canadian Historical Association*, 2 (1992), 171-95.

The kinds of workers hired by the CPR Mechanical Department changed markedly during the war, away from the British-born and towards the Canadian-born, and away from men of military age towards those too old or too young to enlist. In Québec there was a substantial increase in the proportion of French-Canadian workers employed, an increase that was maintained in the 1920s. To a considerable degree the company coped with its need for skilled and semi-skilled workers through internal promotion, which had been a common practice during pre-war booms. Unlike pre-war experience, when employment recovered from the slump of 1914-15 it remained well below the pre-war peak. Possibly a more experienced workforce was able to handle a greater workload, possibly the company decided to maintain some minimum hiring standards and preferred to be short-staffed rather than employ very low ability workers. Despite the publicity given to the employment of women in railway workshops, women made up only a tiny percentage of the workforce in my sample. Their presence could not have alleviated a worker shortage to any substantial extent.

The later war period is often characterized as a time when worker mobility was extremely high. At the CPR, high rates of turnover were concentrated among the most recent hires, as had been true before the war. The lasting effect of the 1914-15 depression was to enlarge the relative size of the core of stable employees who had already worked for the firm for several years.

The CPR reduced the financial cost of military service by paying wages to some volunteers (especially to those volunteering in 1914 and 1915) and also by guaranteeing reemployment, but the men who joined up missed the chance to move up the occupational ladder. In the strongest pre-war expansions, chances of promotion were as great as in the later war years, but promotion possibilities plummeted after 1918. Those who returned to the company had secure jobs, but it seems likely that some would have felt cheated when they saw how many of the men who stayed home had been promoted in their absence, especially when it became obvious that in the 1920s promotions came slowly.

This research project is funded by the SSHRC. I thank Anna Alfano, Mark Antaki, Audrae Erickson, Catherine Jarmain, Valerie Jarvis, Alain Meere, Adrian Owens, Rebecca Toppa and especially Louis Bouchard for their research assistance. The staff of the CP Rail Archives and Pension Benefits departments, and of the McGill Faculty of Arts Computer Laboratory, have been very helpful. Carman Miller and Desmond Morton have offered valuable suggestions.