

Nathan Keyfitz  
Géographe québécois  
(1953)

# "Population Problems."

Texte d'une intervention  
au Symposium du centenaire de l'Université Laval.  
Les 6 et 7 juin 1952.

Un document produit en version numérique par Mme Marcelle Bergeron, bénévole  
Professeure à la retraite de l'École Dominique-Racine de Chicoutimi, Québec  
et collaboratrice bénévole

Courriel : [mabergeron@videotron.ca](mailto:mabergeron@videotron.ca)

Dans le cadre de la collection : "Les classiques des sciences sociales"  
dirigée et fondée par Jean-Marie Tremblay,  
professeur de sociologie au Cégep de Chicoutimi  
Site web: <http://classiques.uqac.ca/>

Une collection développée en collaboration avec la Bibliothèque  
Paul-Émile-Boulet de l'Université du Québec à Chicoutimi  
Site web: <http://classiques.uqac.ca>

## Politique d'utilisation de la bibliothèque des Classiques

Toute reproduction et rediffusion de nos fichiers est interdite, même avec la mention de leur provenance, sans l'autorisation formelle, écrite, du fondateur des Classiques des sciences sociales, Jean-Marie Tremblay, sociologue.

Les fichiers des Classiques des sciences sociales ne peuvent sans autorisation formelle:

- être hébergés (en fichier ou page web, en totalité ou en partie) sur un serveur autre que celui des Classiques.
- servir de base de travail à un autre fichier modifié ensuite par tout autre moyen (couleur, police, mise en page, extraits, support, etc...),

Les fichiers (.html, .doc, .pdf, .rtf, .jpg, .gif) disponibles sur le site Les Classiques des sciences sociales sont la propriété des **Classiques des sciences sociales**, un organisme à but non lucratif composé exclusivement de bénévoles.

Ils sont disponibles pour une utilisation intellectuelle et personnelle et, en aucun cas, commerciale. Toute utilisation à des fins commerciales des fichiers sur ce site est strictement interdite et toute rediffusion est également strictement interdite.

**L'accès à notre travail est libre et gratuit à tous les utilisateurs. C'est notre mission.**

Jean-Marie Tremblay, sociologue  
Fondateur et Président-directeur général,  
**LES CLASSIQUES DES SCIENCES SOCIALES.**

Un document produit en version numérique par Mme Marcelle Bergeron, bénévole, professeure à la retraite de l'École Dominique-Racine de Chicoutimi, Québec.

Courriels : [marcelle\\_bergeron@uqac.ca](mailto:marcelle_bergeron@uqac.ca); [mabergeron@videotron.ca](mailto:mabergeron@videotron.ca)

Nathan Keyfitz

### "Population Problems."

Un article publié dans l'ouvrage sous la direction de Jean-Charles Falardeau, **Essais sur le Québec contemporain. Essays on contemporary Quebec**. Chapitre IV, pp. 67-95 Québec : Les Presses de l'Université Laval, 1953, 260 pp. Textes recueillis par Jean-C. Falardeau lors du symposium du centenaire de l'Université Laval tenu à l'Université Laval les 6 et 7 juin 1952.

[Autorisation formelle accordée le 30 novembre 2010, par le directeur général des Presses de l'Université Laval, M. Denis DION, de diffuser ce livre dans Les Classiques des sciences sociales.]



Courriel : [denis.dion@pul.ulaval.ca](mailto:denis.dion@pul.ulaval.ca)  
PUL : <http://www.pulaval.com/>

Polices de caractères utilisés : Comic Sans 12 points.

Édition électronique réalisée avec le traitement de textes Microsoft Word 2008 pour Macintosh.

Mise en page sur papier format : LETTRE US, 8.5" x 11".

Édition complétée le 20 octobre, 2011 à Chicoutimi, Ville de Saguenay, Québec.



## REMERCIEMENTS



Nous sommes infiniment reconnaissants à la direction des **Presses de l'Université Laval**, notamment à M. **Denis DION**, directeur général, pour la confiance qu'on nous a accordée, en nous autorisant, le 30 novembre 2010, la diffusion de ce livre dans Les Classiques des sciences sociales.



Courriel : [denis.dion@pul.ulaval.ca](mailto:denis.dion@pul.ulaval.ca)

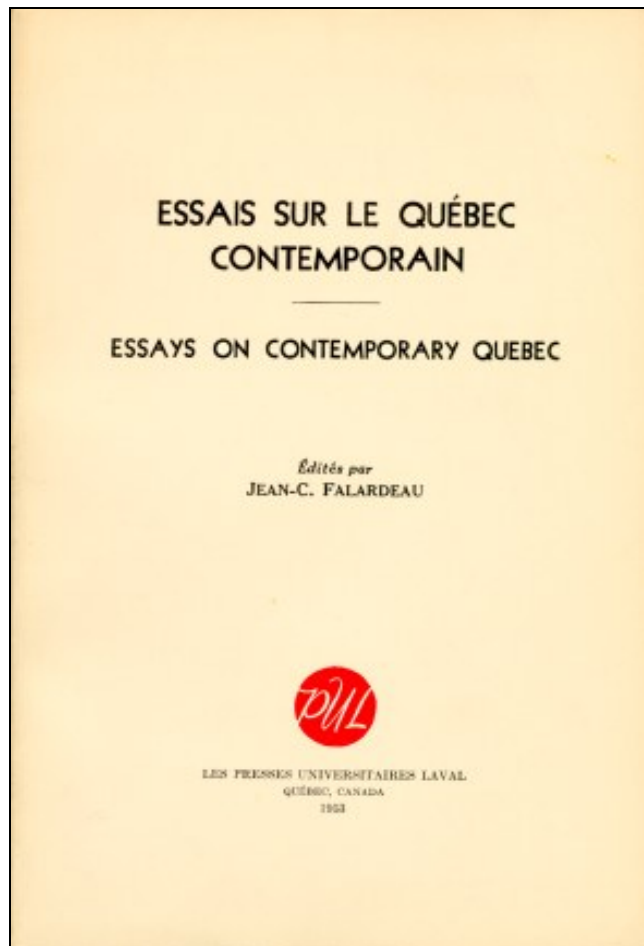
PUL : <http://www.pulaval.com/>

Jean-Marie Tremblay,  
Sociologue,  
Fondateur, Les Classiques des sciences sociales.

20 octobre 2011.

Nathan Keyfitz  
(1953)

**"Population Problems."**



Un article publié dans l'ouvrage sous la direction de Jean-Charles Falardeau, **Essais sur le Québec contemporain. Essays on contemporary Quebec**. Chapitre IV, pp. 67-95 Québec : Les Presses de l'Université Laval, 1953, 260 pp. Textes recueillis par Jean-C. Falardeau lors du symposium du centenaire de l'Université Laval tenu à l'Université Laval les 6 et 7 juin 1952.

# Table des matières

## "Population Problems"

Nathan Keyfitz

### Introduction

1. The changing distribution of population
2. An estimate of the movement from agriculture to industry
3. The changing division of labour
4. The influence of cities on farm family size

### COMMENTS

Oswall Hall

[67]

ESSAIS SUR LE QUÉBEC CONTEMPORAIN.  
Essays on Contemporary Quebec.  
Symposium du centenaire de l'Université Laval, 6-7 juin 1952.

## "Population Problems."

*Nathan Keyfitz*  
démographe

### Introduction

[Retour à la table des matières](#)

This chapter treats of four aspects of Quebec's demographic development. The first is simply the way in which numbers of people have changed in various parts of the province. As the bounded areas of rural parishes became filled, some people moved out, either to colonize new lands or to live in cities, and the nine censuses of Canada show the rate and extent of population change, parish by parish and county by county.

After summarizing the change in population, we try to find to what extent it is due to people moving, as distinct from being born and dying. The censuses show rapidly increasing numbers in urban places and nearly constant numbers in rural. The second part of this study seeks to infer from the changing numbers of rural and urban residents what flow has taken place. That flow can be estimated if one is willing to make assumptions in regard to death rates and other factors.

Once the number of persons who have gone from country to city is worked out, we focus on the changing pattern of occupations which is both cause and effect of the movement. One can hardly study occupations without going into the division of labour between

French and English in the Province of Quebec. The 1951 census will tell some of the consequences of the enormous growth of cities in the 1940's.

The fourth and final section attempts to investigate an aspect of the movement of ideas, of the social change which is occurring contemporaneously with the movement of people from the country to cities. It is well known that taking up city residence changes the outlook of those who move, but a converse of this is not as familiar: what change is taking place among those who are left on farms?

[68]

## 1. THE CHANGING DISTRIBUTION OF POPULATION

[Retour à la table des matières](#)

An easy way of seeing the changing pattern of population in the Province of Quebec is from the county distributions of 1871 and 1951. Table 1 lists the counties in groups which have either some economic resemblance or are contiguous to one another. They are the zones drawn up some time ago by the *Economic Research Division* of the Department of Trade and Commerce. The fifteen such zones present a more quickly understood picture than the full seventy-four counties which form the stub of the census tables.

In the Metropolitan area of Montreal, defined to include Montreal and Jesus Islands and Chambly County, the total population has multiplied by nine over the 80-year period, while the rest of the province has multiplied only by two and a half.

The counties of the Montreal Plains area are divided into two groups, industrial and agricultural. The industrial counties have more than doubled while the agricultural ones have increased by only 10 per cent. A similar contrast is shown within the Eastern Townships zone, where the increase in agricultural counties is 50 per cent while industrial counties trebled. Particular counties can be chosen within these two sub-zones that show the contrast in even more striking degree: Bagot, classed as agricultural, moved



from 19,491 in the 1871 count to 19,224 in 1951, while Drummond, classed as industrial, grew from 10,975 to 53,426.

The same contrast is revealed elsewhere in the province. The industry which came to the St. Maurice valley brought it from 41,362 in 1871 to 179,600 in 1951, while the area north of Quebec City (Laurentides) as well as that south of it (South Shore) did not quite double. The Saguenay rose from 17,000 to 198,000, an increase which, like that of the St. Maurice, is intimately related to power development.

A study by parishes rather than counties and zones would undoubtedly reveal important features of the relation between population growth and industry. But the gross figures by zones offer sufficient indication that industrialized parts have skyrocketed in population, while agricultural areas have increased slowly or not at all. Before we use these census facts to infer the amount of migration from the farms of Quebec to the cities, it will be useful [69] to note the changes in the proportions French in different parts of the province.

### *The changing proportions of French in the Province of Quebec.*

The proportion of French origin (i.e. of French ancestry, which is very nearly the proportion French-speaking) in the Province of Quebec increased from 78.0 to 82.0 per cent between 1871 and 1951.

This reflects the relative rates of natural increase of French and non-French, subject to two conflicting limitations: one is that a larger proportion of non-French than French have left the province, from year to year, for other parts of Canada; the other, that few French are included among the immigrants from abroad who have settled in Quebec. This last limitation does not deserve any proof for it is rather obvious from common experience. The first one can be checked by taking statistics as to origin of people now living in the other Canadian provinces and coming from Quebec. If the same proportion of the French-speaking population as of the English-speaking left Quebec regularly, we would expect that the ratio of the French-speaking to the total population would be the

same for the Quebec-born who live in the rest of Canada as for those who have remained in Quebec. But this is not so. Taking Ontario, for example, we note for 1941, that of 104,251 persons born in Quebec, 58,563 were of French origin <sup>1</sup>. Although these were more than half, they are a far smaller proportion than the French actually living in Quebec are of the total living in Quebec. Somewhat the same picture is revealed for the provinces west of Ontario.

It is, however, with the way in which the percentage French has varied from one part of the Province of Quebec to another that we are here concerned. The zones already introduced are of use in exhibiting the data on French and English.

The Montreal Plains area which extends south from Montreal increased slightly less in proportion French than the province as a whole, and this applies to the industrial and agricultural subzones separately. Change in the Montreal-Laurentian percentage also showed little deviation from that in the province, but the Eastern Townships show an enormous deviation. The industrial

---

<sup>1</sup> *Census of Canada, 1941*, vol. IV, p. 380.

[70]

TABLE 1  
TOTAL AND FRENCH POPULATION OF THE PROVINCE OF  
QUEBEC, BY COUNTIES AND ZONES, 1871 AND 1951

	1871			1951		
	Total	French	French as a % of total	Total	French	French as a % of total
Total	1,191,516	929,817	78.0	4,055,681	3,327,128	82.0
<b>Montreal Metropolitan</b>	<b>164,014</b>	<b>105,946</b>	<b>64.6</b>	<b>1,436,006</b>	<b>934,390</b>	<b>65.1</b>
Chambly	10,498	9,775	93.1	77,931	58,216	74.7
Montreal and Jesus Islands	153,516	96,171	62.6	1,358,075	876,174	64.5
<b>Montreal Plains</b>						
<b>Industrial</b>	<b>65,237</b>	<b>60,058</b>	<b>92.1</b>	<b>136,352</b>	<b>128,604</b>	<b>94.3</b>
Beauharnois	14,757	13,251	89.8	38,748	35,876	92.6
Richelieu	20,048	19,317	96.4	30,801	30,097	97.7
Saint-Hyacinthe	18,310	18,075	98.7	38,101	37,425	98.2
Saint-Jean	12,122	9,415	77.7	28,702	25,206	87.8
<b>Agricultural</b>	<b>123,594</b>	<b>99,889</b>	<b>80.8</b>	<b>186,509</b>	<b>114,243</b>	<b>83.7</b>
Châteauguay	16,166	11,288	69.8	17,857	13,714	76.8
Huntingdon	16,304	4,924	30.2	13,457	7,501	55.7
Iberville	15,413	13,971	90.6	13,507	12,777	94.6
Laprairie	11,861	10,154	85.6	18,639	14,331	76.9
Napierville	11,688	10,815	92.5	9,203	9,062	98.5
Rouville	17,634	16,954	96.1	19,506	17,629	90.4
Soulanges	10,808	9,724	90.0	9,233	8,798	95.3
Vaudreuil	11,003	9,392	85.4	17,378	13,952	80.3
Verchères	12,717	12,617	99.2	17,729	16,479	92.9
<b>Montreal Laurentian</b>	<b>134,688</b>	<b>118,349</b>	<b>87.9</b>	<b>263,725</b>	<b>241,655</b>	<b>91.6</b>
Argenteuil	12,806	3,902	30.5	25,872	16,971	65.6
Berthier	19,993	19,586	98.0	24,717	24,280	98.2
Deux-Montagnes	15,615	13,972	89.5	21,048	18,057	85.8
Joliette	23,075	22,020	95.4	37,251	36,497	98.0
Labelle	314	163	51.9	27,197	26,696	98.2
L'Assomption	15,473	14,979	96.8	23,205	21,801	93.9
Maskinongé	15,079	14,782	98.0	19,478	18,790	96.5
Montcalm	12,742	10,794	84.7	17,520	16,330	93.2
Terrebonne	19,591	18,151	92.6	67,437	62,233	92.3
<b>Eastern Townships</b>						
<b>Industrial</b>	<b>98,720</b>	<b>49,381</b>	<b>50.0</b>	<b>298,072</b>	<b>257,638</b>	<b>86.4</b>
Drummond	10,975	7,036	64.1	53,426	50,807	95.1
Mégantic	18,879	12,074	64.0	45,325	43,392	95.7
Missisquoi	16,922	7,114	42.0	24,689	18,983	76.9
Richmond	11,213	3,718	33.2	34,102	28,645	84.0
Shefford	19,077	12,683	66.5	43,722	39,150	89.5
Sherbrooke	8,516	3,544	41.6	62,166	50,356	81.0
Stanstead	13,138	3,212	24.4	34,642	26,305	75.9
<b>Agricultural</b>	<b>120,000</b>	<b>96,668</b>	<b>79.6</b>	<b>188,722</b>	<b>174,067</b>	<b>92.2</b>

	1871			1951		
	Total	French	French as a % of total	Total	French	French as a % of total
Arthabaska	17,241	15,890	92.2	36,957	36,560	98.9
Bagot	19,491	19,037	97.7	19,224	19,066	99.2
Brome	13,757	3,471	25.2	13,393	6,758	50.5
Compton	11,988	2,890	24.1	23,856	18,293	76.7
Frontenac	5,445	4,648	85.4	30,733	30,128	98.0
Nicolet	23,262	22,621	97.2	30,335	30,050	99.1
Wolfe	8,823	7,504	85.1	18,153	17,470	96.3
Yamaska	19,993	19,472	97.4	16,071	15,733	97.9
<b>St. Maurice Valley</b>	<b>41,362</b>	<b>39,842</b>	<b>93.3</b>	<b>179,600</b>	<b>171,868</b>	<b>96.7</b>
Champlain	21,492	20,858	97.1	85,745	82,592	96.3
Saint-Maurice	19,870	18,984	95.5	93,855	89,276	95.1
<b>Quebec Metropolitan</b>	<b>104,137</b>	<b>78,277</b>	<b>75.2</b>	<b>296,515</b>	<b>279,528</b>	<b>94.3</b>
Lévis	24,831	22,706	91.4	43,625	42,743	98.0
Quebec	79,306	55,571	70.1	252,890	236,785	93.6
<b>Quebec Laurentides</b>	<b>50,265</b>	<b>47,168</b>	<b>93.8</b>	<b>93,101</b>	<b>90,953</b>	<b>97.7</b>
Charlevoix East } Charlevoix West }	15,611	15,270	97.8	28,259	27,784	98.3
Montmorency No. 1 } Montmorency No. 2 }	12,085	11,602	96.0	21,389	21,031	98.3
Portneuf	22,569	20,296	89.9	43,453	42,138	97.0
<b>South Shore (Que.)</b>	<b>106,679</b>	<b>99,161</b>	<b>93.0</b>	<b>189,112</b>	<b>186,481</b>	<b>98.6</b>
Beauce	23,485	22,449	95.6	54,973	54,445	99.0
Bellechasae	17,697	17,542	99.5	25,332	25,193	99.5
Dorchester	17,779	14,996	84.3	33,313	32,435	97.4
L'Islet	13,517	13,375	98.9	22,996	22,532	98.0
Lotbinière	20,606	17,340	84.2	27,985	27,456	98.1
Montmagny	13,555	13,449	99.2	24,514	24,420	99.6
<b>Saguenay</b>	<b>17,493</b>	<b>16,643</b>	<b>95.1</b>	<b>197,910</b>	<b>189,868</b>	<b>95.9</b>
Chicoutimi	11,812	11,376	96.3	115,904	111,510	96.2
Lac Saint-Jean E. } Lac Saint-Jean W. }	5,681	5,267	92.7	31,128 50,878	29,086 49,257	93.4 96.8
<b>Lower St. Lawrence</b>	<b>71,163</b>	<b>68,804</b>	<b>96.7</b>	<b>209,624</b>	<b>206,863</b>	<b>98.7</b>
Matane } Matapédia }	10,022	9,076	90.6	30,243 33,939	29,751 33,532	98.4 98.8
Rimouski	17,396	16,581	97.0	53,220	52,353	98.4
Témiscouata } Rivière du Loup }	22,491	21,809	97.0	28,175 37,375	27,832 37,008	98.8 99.0
Kamouraska	21,254	21,038	99.0	26,672	26,387	98.9
<b>Gaspé</b>	<b>34,652</b>	<b>22,501</b>	<b>64.9</b>	<b>103,651</b>	<b>85,699</b>	<b>82.7</b>
Bonaventure	15,923	9,545	59.9	41,121	32,065	78.0
Gaspé E. } Gaspé W. }	18,729	12,956	69.2	37,442 15,089	29,750 14,720	79.5 97.6
Madeleine Islands }				9,999	9,164	91.6
<b>Gulf</b>	<b>6,487</b>	<b>3,619</b>	<b>64.1</b>	<b>42,661</b>	<b>38,005</b>	<b>77.4</b>
Saguenay	5,487	3,519	64.1	42,664	33,005	77.4
<b>Ottawa-Gatineau</b>	<b>54,125</b>	<b>24,806</b>	<b>45.8</b>	<b>142,659</b>	<b>110,303</b>	<b>77.3</b>
Hull } Gatineau }	23,057	11,454	49.7	57,318 35,264	50,690 24,685	88.4 70.0
Papineau	14,521	9,820	67.6	29,381	25,004	85.1

	1871			1951		
	Total	French	French as a % of total	Total	French	French as a % of total
Pontiac	16,547	3,532	21.3	20,696	9,924	48.0
<b>Abitibi</b>	-	-	-	<b>141,458</b>	<b>121,978</b>	<b>86.2</b>
Abitibi	-	-	-	86,356	76,904	89.1
Témiscamingue	-	-	-	55,102	45,074	81.8

[72]

sub-zone increased from 50.0 to 86.4 per cent French, while the agricultural sub-zone went from 79.6 to 92.2 per cent French.

The St. Maurice valley, almost entirely French from the beginning, dropped very slightly, but the counties of the Laurentians adjacent to Quebec City increased from 93.8 to 97.7 per cent. Metropolitan Quebec increased from 75.2 per cent French to 94.3 per cent, while Montreal hardly changed from its 64.6 per cent of 1871. The Saguenay and Lower St. Lawrence show very slight change, while the Gaspé area shows an increase from 64.9 to 82.7 per cent, a similar change to Saguenay County on the other side of the river.

Particularly striking is the increase in the counties of Quebec near Ottawa where the percentage French rose from 45.8 in 1871 to 77.3. This is similar to the change in the Ontario county of Russell from 50.4 to 81.9 in the same period.

Table 2 shows, for each zone of the province, the percentage French to the total population for each census from 1871 to 1951. There is a striking uniformity in the changes which have taken place over the 80-year period. For example, the industrial portion of the Eastern Townships represents the largest increase, and its per cent French, in every decade without exception, gains between 2.5 and 7 per cent. Oscillations are only to be found in the table where the net change has been very slight. The Montreal Plains industrial counties show an increase from 92.1 to 94.3 per cent over the 80 years and this includes four decades of increase and four of decrease.

Trends as uniform as these would seem to offer opportunities for prediction safer than those presented by most demographic

data. It seems clear that if industrialization continues at a high rate, the number of French in urban areas will increase as a result of migration. Whether or not the present rate of industrial growth continues, the differential birth rate demonstrated by other students <sup>1</sup> will have the effect of increasing the proportion French in both industrial and farm areas of the province.

Sociologists see the spatial distribution of groups such as the French and English in Quebec as the unplanned result of individual movements in which people take up the location to which they

[73]

TABLE 2  
PERCENTAGE FRENCH TO TOTAL POPULATION FOR ZONES  
OF THE PROVINCE OF QUEBEC, CENSUS YEARS 1871-1951

	1871 %	1881 %	1891 %	1901 %	1911 %	1921 %	1931 %	1941 %	1951 %
<b>Total</b>	<b>78.0</b>	<b>79.0</b>	<b>79.7</b>	<b>80.2</b>	<b>80.1</b>	<b>80.0</b>	<b>79.0</b>	<b>80.9</b>	<b>82.0</b>
Montreal Metropolitan	64.6	65.5	63.5	65.5	63.7	61.5	60.8	63.2	65.1
Montreal Plains									
Industrial	92.1	93.0	94.6	93.9	93.4	94.9	92.4	94.6	94.3
Agricultural	80.8	81.5	82.1	81.7	82.9	83.2	83.6	84.6	83.7
Montreal Laurentian	87.9	88.5	89.8	90.5	91.1	91.6	91.8	91.7	91.6
Eastern Townships									
Industrial	50.0	55.3	62.1	66.2	71.6	77.3	79.8	82.8	86.4
Agricultural	79.6	79.3	82.8	84.3	86.9	88.8	89.9	91.0	92.2
St. Maurice Valley	96.3	95.9	96.8	97.0	93.4	95.0	95.0	95.1	95.7
Quebec Metropolitan	75.2	80.0	85.2	86.0	88.8	91.4	92.6	93.1	94.3
Quebec Laurentides	93.8	94.8	96.4	96.5	97.2	97.3	97.0	97.8	97.7
South Shore (Que.)	93.0	94.7	96.3	96.0	97.7	98.1	98.4	98.7	98.6
St. Maurice Valley	96.3	95.9	96.8	97.0	93.4	95.0	95.0	95.1	95.7
Saguenay	95.1	97.9	99.2	98.4	99.1	98.1	95.6	96.3	95.9
Lower St. Lawrence	96.7	96.6	98.5	97.0	97.9	98.6	98.1	98.0	98.7
Gaspé	64.9	68.1	68.5	72.2	74.7	75.4	77.7	81.0	82.7
Gulf	64.1	70.9	76.1	69.6	78.5	71.6	71.4	74.2	77.4
Ottawa - Gatineau	45.8	50.1	56.3	60.3	65.5	69.6	72.0	75.3	77.3
Abitibi	-	-	53.1	45.3	65.6	85.3	81.1	83.6	86.2

<sup>1</sup> Enid CHARLES, *The changing size of the Canadian family, 1941, Census Monograph*, Dominion Bureau of Statistics, Ottawa.

are in some sense best suited. An ecological process known as succession has resulted, as large French families bought farms from the English whose families were smaller, for example in the Eastern Townships <sup>1</sup>. According to one of Horace Miner's informants, about one-quarter of the farmers of St. Denis place two sons on farms in each generation <sup>2</sup>.

For a study of succession in agricultural areas one should ideally have data on individual farms in each locality at each census: whether they are operated by English-speaking or by French-speaking farmers, their family sizes, and hired help, and most particularly, the departures of individual family members. Lacking these, we use the changing residence of the population as a whole [74] to derive estimates of actual movement. The breakdown of the movement into French and English must await further study.

## ***2. AN ESTMATE OF THE MOVEMENT FROM AGRICULTURE TO INDUSTRY***

[Retour à la table des matières](#)

The large families of French Canada are seen in many ways. They are the hope of the future, the sign of a robust and vigorous national life, the result of moral principles and the assurance of its continuance. These are not the concern of a purely demographic paper, which takes up numerical aspects only. Many writers have alluded to the fact that if farms are not to be divided, then there must be a single inheritor of the family lands in each generation. The non-inheriting children can remain on the farm as dependents or can leave to found new farms elsewhere, or they can go into non-farm occupations. In Quebec, if they leave the family farm and become farmers elsewhere, they must either buy land, in general from the English, or settle new territories. If they leave agricul-

---

<sup>1</sup> See Aileen D. Ross, *Ethnic relations and social structures: A study of the Invasion of French-speaking Canadians into an English-Canadian district*, unpublished Ph. D. Thesis submitted to the Department of Sociology, University of Chicago, 1951.

<sup>2</sup> Horace R. MINER, *St. Denis, a French-Canadian parish*, Chicago, The University of Chicago Press, 1939.

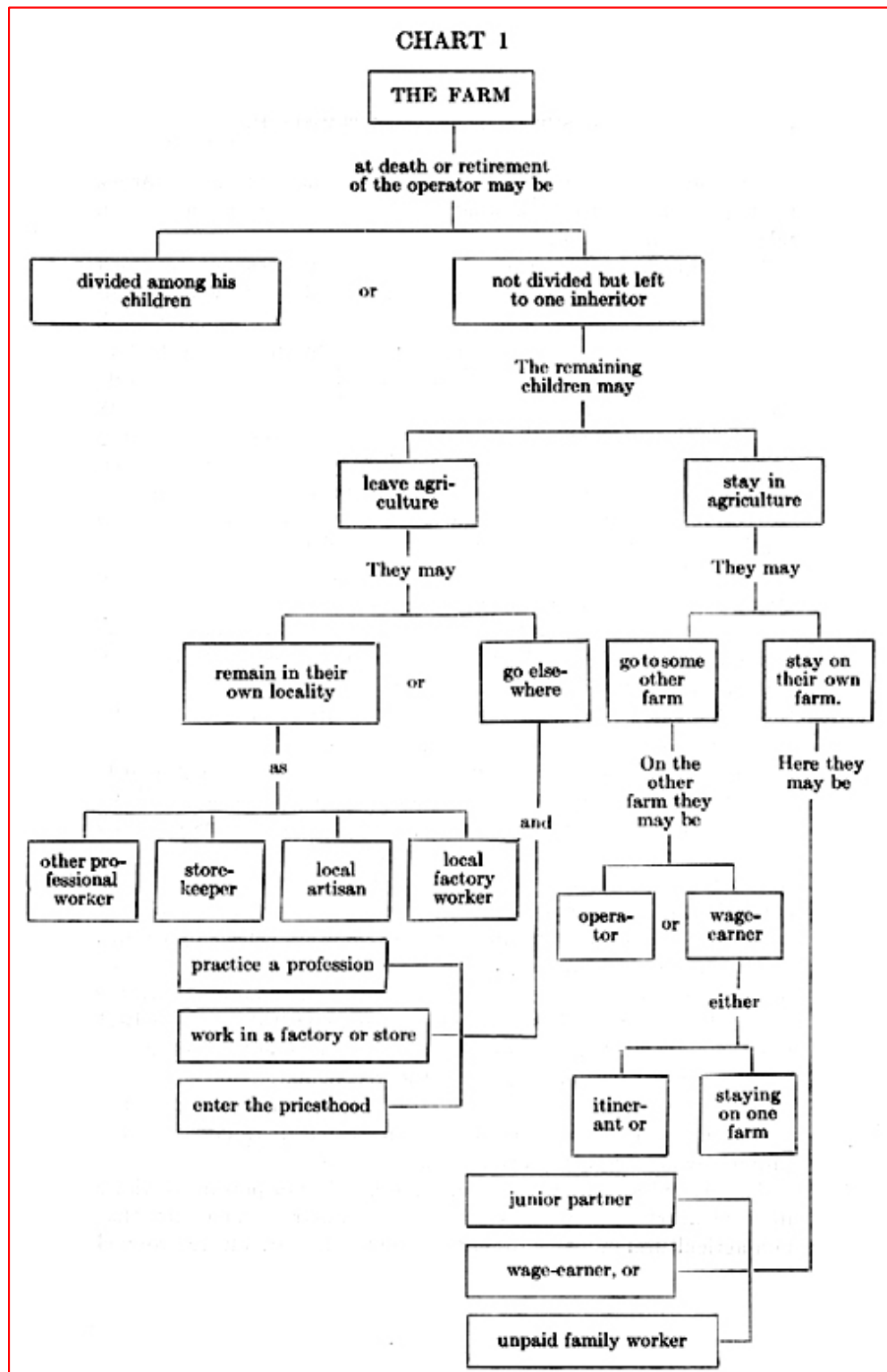
ture they may become priests or storekeepers, or go into city factory work. The various logical possibilities are shown on Chart 1.

The possibilities of this scheme are rather well known. Not scholars alone but every person and every family deals more or less consciously with the arithmetical paradox arising when lands are inherited by one child and families are large. Any circumstance which affects individual families so directly is sure to stand out in popular consciousness and to be a favorite subject of discussion and of literature. In this respect, the migration from the land is quite the opposite of the differential in family size (discussed further in Part 4 of this paper), the latter being visible only as a statistical difference between groups whose family sizes on the ground do not look noticeably different.

Although the phenomenon of migration from farms is well known, it has not been measured. No census volume or statistical yearbook shows the number of French-Canadian young men and women leaving their parents' farms. To have objective measurement would be valuable, for the actual amount of movement may turn out to be much greater or much less than estimated by popular and scholarly guesses. In forecasting the amount of industry that



[75]



[76]

will be needed to continue to take up the flow from the farms, we require a knowledge of what the flow has been in the past in relation to past birth rates.

The importance of measurement, however, does not by itself make measurement possible. Statistical results sufficiently accurate to be useful, for the past period with which we are concerned, may simply not exist, - it is possible for such a phenomenon to be lost without trace. This is fortunately not quite the case. The movement from farms with the growth of a factory economy underlies those facts on the number of persons residing in different parts of the province at successive censuses which we have discussed in Part 1, and by the use of these facts of residence and other data we can infer how many people must have moved. To do so involves assumptions at several points, which we hope to cover with suitable safeguards. It may be well to describe the general strategy before we deal with specific figures.

The essence of the strategy is the use of two more or less independent approaches. Admitting the arbitrariness of the assumptions in any one method, we use two methods and consider that the difference between them is at least a first step in measuring the error of each.

The first method is confined entirely to 13 counties of the province. In all of these, the population is largely engaged in farming. They are the main source of migration to cities, and, what is essential to our calculation, their areas are either fixed through the period from 1871 to 1951 or their populations can be adjusted to the equivalent of fixed areas. Initially we work from the numbers of persons at the several ages found in the counties, census by census, and make assumptions in regard to mortality among them. If, in the ages 15-59 there were 64,000 men in 1901, and if new entrants (from the age group 5-15) less deaths equal 18,000, and the 1911 population is 68,000, then 14,000 men must have left. Net migration is thus a residual figure in the reconciliation of successive censuses. It is expanded by the ratio of all farms in the province to those in the 13 counties, to constitute our Estimate 1 of the province-wide migration from farms.

The second approach is through the number of persons working in agriculture and in non-agricultural industry. The fact that non-agricultural industry rose by 748,000 while agriculture dropped [77] 17,000 between 1891 and 1951 should provide a clue to the movement. The change over the whole period, however, conceals a difference that arises very conspicuously in the 1940's. During the war and post-war years, the population in agriculture in the Province of Quebec dropped from 252,000 to 188,000, a decline of 64,000. This decline more than counterbalanced the steady rise that had been shown from 1901, and hence the surprising result that, although the Province of Quebec is almost three times as great in population in 1951 as it was in 1901, it contains fewer men in agriculture. The increase in non-agricultural industry is shown in every one of the thirteen main occupational groups, except fishing and trapping which, like farming, declined sharply. The rise from 79,000 to 237,000 in manufacturing occupations is especially conspicuous (Table 3).

We first estimate the natural increase and the net movement for the province as a whole, and then calculate the proportion of this natural increase which arises on farms. By subtracting from the natural increase on farms the actual increase of farm workers between successive censuses, we obtain our Estimate 2 of the net outflow from agriculture.

If methods 1 and 2 produce similar figures, this is evidence that both are realistic. We will not bother the reader here by giving the arithmetic of their computation but will remain satisfied with presenting Table 4 which shows the results of the two methods <sup>1</sup>.

In total and in five of the eight decades, agreement is surprisingly close. The main discrepancies are shown in 1871-81 and in the decades containing the first and second world wars.

To what extent does the degree of agreement between the two methods check either of them? Agreement does not demonstrate the suitability of the death rates used, since the same rates entered both calculations. Their appropriateness is however to be judged by the fact that they produce a number of deaths lower in the total of all ages than those officially recorded for the Province

---

<sup>1</sup> Full detail of these calculations will be presented in another paper shortly to be published by the author.

of Quebec, rural and urban together. Differentials between the youngest ages of life and older ages, and between rural and urban parts, may be such that the survival rates here used are not too high for the favoured group of rural men of working ages. Any

[p. 78]

TABLE 3  
 MALES GAINFULLY OCCUPIED, 10<sup>a</sup> YEARS OF AGE AND OVER,  
 BY OCCUPATION GROUP, FOR QUEBEC, 1891 TO 1951

OCCUPATION GROUP	1891	1901	1911	1921	1931	1941	1951
All occupations	399,039	435,034	552,140	646,440	823,287	928,464	1,130,194
Agriculture	204,552	194,381	201,599	217,416	225,914	251,539	187,846
Fishing and trapping	4,265 <sup>c</sup>	4,317 <sup>d</sup>	4,431	4,005 <sup>e</sup>	6,418	8,081	5,538
Logging	4,206	3,551	11,278 <sup>f</sup>	10,838	15,557	30,457	35,935
Mining, quarrying	2,119	1,338	5,560 <sup>g</sup>	4,118	6,128	9,977	12,246
Manufacturing	52,058	{ 101,884 }	79,288	87,793	111,352	173,288	237,189
Construction	24,183		35,085	44,887	62,831	69,961	98,510
Transportation and communication	15,533	{ 45,171 }	34,952	41,263	66,018	79,317	121,643
Trade and finance	23,788		51,131	63,176	78,388	81,684	106,274
Service	23,918	27,613	33,729	46,116	73,714	89,967	134,070
Professional	9,332	.....	14,165	20,388	29,466	36,280	51,500

Personal	9,307	13,202	15,806	16,753	35,021	41,534	56,410
Clerical	5,998 <sup>h</sup>	15,396 <sup>h</sup>	17,219	33,086 <sup>i</sup>	43,258	49,404	69,207
Labourers <sup>j</sup>	36,865	41,241	77,868	91,368	133,368	81,038	100,242
Not stated	1,564	242	.....	2,375	341	3,751	21,494

*a* 14 years and over in 1941 and 1950.

*b* Includes all farmers' sons, 14 years and over, whether or not reported with gainful occupation.

*c* Does not include nomadic Indians.

*d* Does not include Indians.

*e* Does not include Indians on Reserves.

*f* Includes pulp mill employees.

*g* Includes almost all mine and smelter employees, except clerical workers.

*h* Clerical workers in government service were included with service.

*i* Includes proof readers, shippers, weighmen, and postmen classified elsewhere in other years. The addition of these people to the 1931 figure would have added 18.0 p.c. to the number of males in this occupation group.

*j* Labourers in all industries except agriculture, fishing, logging and mining are included in this group.

NOTE : Occupations were rearranged as far as possible on the basis of the 1931 classification, though some adjustment of the 1931 grouping was necessary

[p. 79]

TABLE 4  
NET OUT-MIGRANTS FROM FARMS  
OF THE PROVINCE OF QUEBEC CALCULATED ON

	Method 1	Method 2
	000's	
1871-81	34	12
1881-91	55	55
1991-1901	57	70
1901-11	43	48
1911-21	54	40
1921-31	61	57
1931-41	33	34
1941-51	57	114
	<hr style="width: 10%; margin: 0 auto;"/> 394	<hr style="width: 10%; margin: 0 auto;"/> 430

error is probably in the direction of using death rates that are too low, and thus exaggerating the movement off the farms. Errors in mortality, however, even if substantial, can have only a small effect on the movers at the ages in which we are interested. For the ages 15 to 59, an error in the rates of 20 per cent leads to an error in net migrants of from 5 per cent to 10 per cent.

The two methods used are otherwise independent. Thus the assumption of an equal per cent of male population engaging in gainful

activity in farm as in non-farm areas affects Estimate 2 only. The fact that, on the one hand, the 13 farm countries include contain a random sample of the entire farm population, affects Estimate 1 only.

The totals of out-migration for each decade can be expressed in two kinds of rates. Insofar as we are interested in how the migration affects the average farm, we seek the number of migrants per farm per decade. The simplest way of doing this is to relate [p. 80] the migrants of the 13 counties of, Estimate 1 to the number of farms in those counties. The number of farms in these counties as given will serve (Table 5) as the denominator for the ratio of migrants to farms. One-tenth of the ratio of out-migrants to farms (column 3 of Table 5) may be thought of as the annual average number of persons leaving per farm. Its reciprocal, which is shown in column (4), estimates the average interval in years between successive departures.

The sort of minor improvement which has here been disregarded is to use the number of farms at the middle rather than at the end of the intercensal period, for changes in number of farms are small in relation to other difficulties of the computation.

The age distribution of the movers is a by-product of this work which will be required for the second way of regarding the figures of movement from farms.



TABLE 5  
 NUMBER OF FARMS AND MIGRANTS  
 IN 13 QUEBEC COUNTIES 1871-1951

	Farms (1)	Out- migrants 15 - 59 years of age (2)	Average num- ber of years, elapsing be- tween succes- sive Out- migrants on each farm (3) $(2) / (1) \div 10$	Average Num- ber of Out- migrants (4) $1/3$
1871	28,629	-12,149	.042	24
1881	33,032	-17,135	.052	19
1891	39,554	-17,944	.045	22
1901	31,661	-14,241	.045	22
1911	38,913	-18,406	.047	21
1921	33,839	-19,875	.059	17
1931	33,154	-10,827	.033	30
1941	35,419	-19,390	.055	18
1951	30,972			

Table 6 refers to the 13 counties which have been arbitrarily selected and for which absolute numbers do not have significance.

[p. 81] We see that 47 per cent of the out-of-county movers have been between 20 and 29 years of age over the period 1871-1951 and 78 per cent were between 15 and 34 years. There is a small return movement at ages beyond 60, not shown in the table. Substantial consistency was found in the age pattern for the several decades.

TABLE 6  
 MALE OUT-MIGRANTS BY AGE GROUP  
 FROM 13 COUNTIES OF QUEBEC, 1871-1951

Age	Per cent of Out-migrants 10-59
10-14 years	7.9
15-19 years	14.9
20-24 years	22.6
25-29 years	24.9
30-34 years	15.7
35-39 years	6.0
40-44 years	3.4
45-49 years	2.5
50-54 years	1.1
55-59 years	1.0
<b>Total</b>	<b>100.0</b>

Table 7 shows for the 13 counties the number of males enumerated at 15-19 years of age in successive censuses (column 1). One-fifth of this number gives the rate at which the new generation reaches working age each year, and so provides an estimate of the population from which the migrants come. There is no single age at which persons leave farms but since Table 5 has shown that the majority go between the ages of 15 and 34, Table 7 neglects later ages. The numbers of migrants shown for a decade are ten times the average annual number, and the fraction leaving annually can therefore be obtained by dividing

one-tenth of the number of migrants by one-fifth of the number of males at ages 15-19 at the beginning of the decade. Since the migrants attain the ages [p. 82] specified through the course of the decade rather than at the beginning, there is a rough correspondence between the time reference of numerator and denominator. The resulting quotients expressed as percentages are shown in column 3 of Table 7.

TABLE 7  
MALE MIGRANTS AND MEN COMING OF AGE  
IN 13 COUNTIES OF ESTIMATE 1

	Population 15-19 at beginning of decade	Migrants 15-24 during decade	Annual percentage migration of men coming of age $(2) \times .5$ (1)
	(1)	(2)	(3)
1871-81	12,658	9,998	39.5
1881-91	13,141	14,349	54.6
1891-1901	13,447	15,115	56.2
1901-11	13,179	12,490	47.4
1911-21	13,830	15,310	55.4
1921-31	15,088	16,251	53.9
1931-41	15,583	10,004	32.1
1941-51	17,126	16,678	48.7
<b>Total 1871-1951</b>	<b>114,052</b>	<b>110,195</b>	<b>48.3</b>

The ratios average about 48 per cent. In other words, one farm boy out of two leaves his county between the ages of 15 and 34. The smaller numbers leaving in the first decade 1871-81 may be due to the

filling up of the counties or it may be an error, since our Estimate 2 shows a much larger number in this decade. After this, the per cent leaving is fairly level at about 50 from 1881 to 1931. During the 30's, there was a drop which constitutes the backing up of population on the farms <sup>6</sup> due to lack of jobs in industry.

[p. 83]

Miner's description of the family cycle has often been referred to. It will be quoted again here in interpreting the figures of the outflow from farms : « *...By the time the young couple have been married eight years, they have had five children, one of whom had died. The eldest child is seven years old, the youngest a babe in arms. The family cycle is so regular that native expression gives voice to such a remark as "He is just a young man. He has only four or five children." ...In eight more years the father is forty-two and the couple has had ten children, three of whom have died. The eldest sons are helping in the field, and there is no labor problem. By this time the father has begun to think seriously of plans for the future of his children, for whom he is responsible. He will ultimately have to arrange for six children. Obviously, one of these, a boy, will inherit the parental land ... When the young man inherits, the cycle recommences* <sup>7</sup>. »

Miner sums up the outlooks of the ten children : « *... four die before reaching twenty-five years ; one inherits the paternal land ; one marries a farmer ; and one (if a boy) enters priesthood, or profession, or (if a girl) enters convent, becomes a school teacher, or marries a professional man. There are still three children unaccounted for. The father, during his management of the farm, although passing on the responsibility to his successor in the latter's first years, tries to buy another farm or save the money for a son to get a farm somewhere. A*

---

<sup>6</sup> Referred to in Everett-C. HUGHES, *French Canada in transition*, Chicago, University of Chicago Press, 1941.

[http://classiques.ugac.ca/classiques/hughes\\_everett\\_cherrington/hughes\\_ec.html](http://classiques.ugac.ca/classiques/hughes_everett_cherrington/hughes_ec.html)

<sup>7</sup> Horace MINER, *op. cit.*, pp. 81-83.

[http://classiques.ugac.ca/contemporains/miner\\_horace/miner\\_horace.html](http://classiques.ugac.ca/contemporains/miner_horace/miner_horace.html)

*local informant estimated that one-quarter gives the boy some technical training or sends him to cities or industrial centers where he can get work* <sup>8</sup>. »

It is from among the three children unaccounted for that the migrants must come. Miner later refers to the unmarried population of the parish : men in this unmarried population may become hired hands to help families at the stage of the cycle where the siblings of the inheritor have left and his children are not yet old enough to take part in farm work.

These statements seem broadly consistent with our calculation of about 50 per cent of young men leaving the county of their birth and a young man leaving each farm every 20 years. However, ours is an average, not a typical, figure ; it takes in farms which [p. 84] have no children at all ; it includes all farms, English as well as French. Allowance for these and other crudities awaits further analysis.

### ***3. THE CHANGING DIVISION OF LABOUR***

[Retour à la table des matières](#)

Our third section follows the men who left farms to enter the factories and other urban economic activity. Much scholarly work has been done on this topic, including useful interpretation of available statistics. The encouragement and example of Professor Everett-C. Hughes have resulted in such studies as those of Roy and Jamieson, and students of the Laval Faculty of Social Sciences have studied specific industries.

The fundamental treatment of the division of labour between French and English is by Professor Hughes himself <sup>9</sup>. He considers a factory not only as the site of a process of production, but as a social system as well. This means that the notion of « qualification » for the

---

<sup>8</sup> *Ibid.*

<sup>9</sup> *Op. cit.*

job must be extended to include other items than mere technical competence. If qualification actually meant technical competence only, if the directors of an enterprise acted in robot-like fashion to maximize profits, each time a vacancy occurred, they would consider all candidates offering themselves at the given salary, they would have them arranged exactly in order of skill at the specific work, and would pick the top one from the list. This conception of the method of selection is itself a product of culture, and however much we all subscribe to the culture which prescribes it as the ideal, sociologists must attempt a more descriptive statement, an objective examination of the choices which are not purely objective in the profit-maximizing sense.

The qualifications begin of course with the technical knowledge which is gained in schools ; they also involve the experience gained on the job as well as such qualities as initiative and reliability of performance. Finally, they include what is implied by the need to fit into a social organization. For some posts, as Professor Hughes points out, the criteria of selection may include that the appointee be of such background that he can be safely and comfortably entertained at dinner. For other posts, such social qualifications are not important. When the confidence of management is primary to the job, the appointee tends ethnically to resemble management. When it is the confidence of staff that is primary to the job, the appointee resembles staff. The suitability of a person is then not established once, for all purposes, but in a series of stages, of separate gestures, for example in the form of promotions, each of which constitutes, in Hughes' words, a « vote of confidence. » These are some of the factors which operate in our bi-cultural industrial situation.

The existing studies which generalize to Quebec or the city of Montreal <sup>10</sup> show the consequent division of labour at the 1931 census. It was one in which « the French Canadians are, as French human geographers would say, the passive element in the human geography of this region. The English are the active, episodic, catastrophic ele-

---

<sup>10</sup> S. M. JAMIESON, *French and English in the institutional structure of Montreal, A study of the social and economic division of labour*, M. A. Thesis, McGill University, 1938.

ment... <sup>11</sup> » My interest here is the division of labour between French and English in Canada as a whole, and I have used the 1941 census to see what change took place through the 1930's.

The news on the 1930's can be discussed in the great detail of 400 occupation classes. Table 8 is confined to highlights. In transport, for example, the railway running trades, in which the French have not been well represented, showed little change between 1931 and 1941. French chauffeurs and taxi drivers, on the other hand, who already constituted 42 per cent of the occupation, moved up to 44 per cent ; French truck drivers from 24 per cent to 30 per cent ; French messengers from 24 per cent to 38 per cent. In commercial occupations, the per cent of storekeepers who were French showed little change, but the French increased relatively as sales clerks and diminished as commercial travellers.

The professional services are of central interest. Among chemists and engineers, there was no appreciable change in the proportion French, while the traditional fields of doctor, lawyer, notary and

---

<sup>11</sup> Everett-C. HUGHES, *The problem of planning in Quebec*, in *Housing and Community Planning*, McGill, 1947, p. 159.

[p. 86]

TABLE 8  
 PERCENTAGE FRENCH TO TOTAL FOR SELECTED OCCUPATIONS,  
 CANADA, 1931 AND 1941

	1931			1941		
	Total	French	%	Total	French	%
All occupations <sup>a</sup>	3,260,014	808,490	24.8	3,353,416	939,769	28.0
<b>Agriculture</b>	<b>1,107,766</b>	<b>275,738</b>	<b>24.9</b>	<b>1,064,847</b>	<b>302,004</b>	<b>28.4</b>
Farmers and stock raisers	626,112	141,070	22.5	630,709	158,155	25.1
Farm labourers	478,632	134,244	28.0	431,102	143,490	33.3
<b>Fishing, Hunting and Trapping</b>	<b>47,408</b>	<b>10,067</b>	<b>21.2</b>	<b>61,126</b>	<b>11,047</b>	<b>21.6</b>
Fishermen	33,620	9,017	26.8	33,273	9,904	29.8
Hunters, trappers, guides	13,798	1,050	7.6	17,853	1,143	6.4
<b>Logging</b>	<b>43,996</b>	<b>18,614</b>	<b>42.3</b>	<b>80,248</b>	<b>40,395</b>	<b>60.3</b>
Owners and Managers.	2,463	851	34.6	2,004	799	39.9
Foremen	912	384	42.1	1,321	663	50.2
Foresters and timber cruisers	3,182	1,190	37.4	2,923	1,292	44.2
Lumbermen	37,438	16,189	43.2	74,000	37,641	50.9
<b>Mining and Quarrying</b>	<b>58,685</b>	<b>7,910</b>	<b>13.5</b>	<b>71,861</b>	<b>13,077</b>	<b>18.2</b>
Owners and Managers	1,249	131	10.5	1,360	93	6.8
Foremen	2,001	272	13.6	2,804	410	14.6
<b>Manufacturing</b>	<b>394,823</b>	<b>94,055</b>	<b>23.8</b>	<b>561,001</b>	<b>164,886</b>	<b>27.6</b>
Owners and Managers	36,936	7,691	20.8	35,499	6,506	18.3



	1931			1941		
	Total	French	%	Total	French	%
Foremen <sup>b</sup>	17,674	4,323	24.5	28,555	6,735	23.6
Bakers	10,539	3,256	30.9	10,793	3,713	34.4
Machinists - metal	32,476	6,240	19.2	42,924	10,001	23.3
Printers	15,576	2,177	14.0	15,997	3,583	22.4
Stationary enginemen	21,116	2,821	13.4	29,792	6,760	22.7
<b>Construction</b>	<b>202,970</b>	<b>59,565</b>	<b>29.3</b>	<b>212,716</b>	<b>70,969</b>	<b>33.4</b>
Owners and Managers	13,012	3,022	23.2	9,357	2,000	21.4
Foremen	5,381	1,360	25.3	4,481	1,293	28.9
Carpenters	81,264	26,457	32.6	89,787	32,682	36.4
Painters, decorators, glaziers	34,827	10,086	29.0	38,416	13,138	34.2
Plumbers and pipe fitters	17,471	5,365	30.7	18,937	6,439	34.0
<b>Transportation and Communication</b>	<b>271,244</b>	<b>61,746</b>	<b>22.8</b>	<b>294,800</b>	<b>80,754</b>	<b>27.4</b>
Owners, officials, managers.	8,397	1,287	15.3	8,299	1,080	13.0
Chauffeurs and taxi drivers	15,388	6,398	41.6	15,090	6,567	43.5
Locomotive engineers	7,920	1,021	12.9	7,088	907	12.8
Locomotive firemen	5,948	919	15.5	5,235	909	17.4
Longshoremen and stevedores	4,816	2,093	43.5	9,476	4,168	44.0
Messengers	12,880	3,041	23.6	11,711	4,418	37.7
Sectionmen and trackmen	23,587	3,871	16.4	24,422	4,928	20.2
Teamsters & carriage drivers	22,286	6,879	30.9	18,720	6,515	34.8
Truck drivers	43,698	10,671	24.4	80,403	23,799	29.6
<b>Trade</b>	<b>269,799</b>	<b>65,472</b>	<b>21.4</b>	<b>266,023</b>	<b>62,806</b>	<b>23.6</b>

	1931			1941		
	Total	French	%	Total	French	%
Owners, managers, dealers - retail	94,644	20,698	21.9	100,756	23,486	23.3
Owners, managers, dealers - wholesale	13,336	1,516	11.4	20,188	2,871	14.2
Commercial travellers	16,495	5,465	33.1	29,882	6,575	22.0
Salespersons in stores	100,537	22,680	22.6	81,270	24,282	29.9
<b>Finance</b>	<b>36,252</b>	<b>6,333</b>	<b>17.5</b>	<b>30,576</b>	<b>5,783</b>	<b>18.9</b>
Owners, managers, officials	8,557	1,368	16.0	8,241	1,338	16.2
Insurance agents	17,049	3,795	22.3	14,571	3,596	24.7
<b>Service</b>	<b>270,673</b>	<b>58,873</b>	<b>21.8</b>	<b>308,550</b>	<b>76,951</b>	<b>24.9</b>
Architects	1,296	234	18.1	1,186	271	22.8
Artists and art teachers	1,909	296	15.5	2,328	404	17.4
Authors, editors, journalists	2,880	432	15.0	3,434	731	21.3
Clergymen and priests	12,662	3,695	29.2	14,077	4,514	32.1
Dentists	4,007	674	16.8	3,695	727	19.7
Draughtsmen and designers	4,596	526	11.4	5,596	855	15.3
Engineers - professional	15,818	1,938	12.3	18,547	2,378	12.8
Lawyers and notaries	8,004	2,081	26.0	7,791	2,249	28.9
Physicians and surgeons	9,817	2,204	22.5	10,339	2,470	23.9
Professors and college principals	2,941	1,570	53.4	3,858	2,208	57.2
Teachers - schools	18,274	4,649	25.4	21,988	5,519	25.1
Policemen and detectives	10,900	2,799	25.7	15,960	4,711	29.5
Postmasters	2,439	463	19.0	3,205	731	22.8

	1931			1941		
	Total	French	%	Total	French	%
Postmen and mail carriers	6,700	1,640	24.5	7,310	2,044	28.0
Owners and managers - hotels	5,399	1,722	31.9	5,945	1,826	30.7
Owners and managers - restaurants	9,765	2,368	24.2	10,859	3,535	32.6
Barbers, hairdressers, manicurists	16,368	5,406	33.0	14,889	5,137	34.5
Cooks	17,832	3,300	18.5	17,947	4,263	23.9
Guards and caretakers n. e. s	13,411	3,663	27.3	20,815	5,821	28.0
Janitors and sextons	14,691	1,878	12.8	19,221	3,628	18.9
Laundrymen	9,607	1,225	12.8	5,419	732	13.5
Lodging and boarding housekeepers	1,742	299	17.2	2,208	366	16.6
Waiters	11,203	2,149	19.2	13,735	3,728	27.1
<b>Clerical</b>	<b>141,191</b>	<b>26,876</b>	<b>19.0</b>	<b>159,779</b>	<b>34,586</b>	<b>21.6</b>
Accountants and auditors	46,405	9,133	19.7	46,040	11,258	24.5
Book-keepers and cashiers						
Office clerks	94,673	17,340	18.3	110,043	22,397	20.4
Shipping clerks	15,045	2,281	15.2	23,044	4,628	20.1
<b>Labourers</b> (not in agriculture, fishing, logging or mining)	<b>428,062</b>	<b>133,400</b>	<b>31.2</b>	<b>251,889</b>	<b>86,511</b>	<b>34.3</b>

<sup>a</sup> Not including males in « not stated » classification.

<sup>b</sup> Including inspectors, testers-chemicals and inspectors, gaugers-metal.

[p. 88]

priest showed a rise about equal to the gain in the proportion of the labour force which is French. Though the proportion of engineers who were French did not increase, the percentage of draughts-men rose from 11 to 15. Going further from the old professions, we find that policemen, detectives, and postmasters increased appreciably in the proportion French, and in such services as janitors, waiters, and cooks the proportion French increased substantially.

In the clerical group taken as a whole, the proportion of French increased slightly less than it did among the gainfully occupied. Accountants and book-keepers however increased from 20 to 25 per cent French, shipping clerks from 15 to 20 per cent. Unfortunately, a class such as « accountants and book-keepers » lumps individuals of very different income and prestige, and through the possibility of different movements of French and English within it, we are prevented from drawing any very precise conclusion.

Although the statement is not entirely unambiguous, it appears that the description of a division of labour whereby the French Canadians were left behind in business and industry applied no less 10 years ago than it did 20 years ago. However, the 1930's were a time of regression and stand in sharp contrast to the 1940's. Table 9 indicates the relative and absolute decline of agriculture in every province during the 1940's. Quebec dropped from 27 to 17 per cent agriculture, reflecting an extraordinary alteration in the scheme of things, an unprecedented change to take place in a single decade. We therefore await with special interest the 1951 census results showing occupation by origin.

#### ***4. THE INFLUENCE OF CITIES ON FARM FAMILY SIZE***

[Retour à la table des matières](#)

The influence which the city exerts on the countryside is not easily measured, but some attempt to measure it seems a necessary complement to our discussion. We have already found from censuses the degree to which the cities of the Province of Quebec recruit new population from the countryside. Our last problem is to see if the census can tell us about the effect which industrialization and the increasing size of cities have on those who remain in the countryside. That the city has an effect on the minds and behaviour of those who have moved into it is beyond discussion :

[p. 89]

TABLE 9  
PERCENTAGE OF GAINFULLY OCCUPIED MALES IN AGRICULTURE, FOR CANADA AND PROVINCES, 1941 AND 1951

PROVINCE	1941			1951		
	Total gainfully occupied	Gainfully occupied in agriculture	%	Total gainfully occupied	Gainfully occupied in agriculture	%
Canada	3,363,111	1,064,847	31.7	4,121,832	797,874	19.4
Newfoundland	-	-	-	89,460	3,567	4.0
Prince Edward Island	26,088	16,350	62.7	28,156	12,693	45.1
Nova Scotia	153,941	36,934	24.0	178,087	22,977	12.9
New Brunswick	119,341	41,136	34.5	134,953	26,211	19.4
Quebec	928,464	251,539	27.1	1,130,194	187,846	16.6
Ontario	1,140,105	264,914	23.2	1,439,966	193,795	13.5
Manitoba	215,705	90,774	42.1	232,296	70,430	30.3
Saskatchewan	273,122	184,244	67.5	251,077	141,736	56.5
Alberta	247,622	138,814	56.1	291,269	111,745	38.4
British Columbia	258,723	40,142	15.5	346,374	26,874	7.8
<b>9 Provinces</b>	<b>3,363,111</b>	<b>1,064,847</b>	<b>31.7</b>	<b>4,032,372</b>	<b>794,307</b>	<b>19.7</b>

what we seek here is its effect on those who remain on the farm.

This point could be attacked in many ways. The anthropologist, for example, might fruitfully examine changes through time in architectural taste, in clothing fashions, in forms of amusement. So far as we are concerned, the data which we must use are simply the number of children born to mothers, as reported in the 1941 census. The specific question that we put to the data is whether the families living near cities are smaller than those further away. If family size in the countryside increases with distance from cities, among families that are

the same in income, education, etc., then we have a measure of the extent to which influence cities is pervading the countryside. Several methods of investigation, more or less independent, were used to determine this fact, and their agreement is sufficient for a reasonably firm conclusion.

While this topic is under study, it is convenient to examine a related question, namely whether the Canadian of French ancestry is influenced by neighbours who are English-speaking. It may be assumed that the French who live near the English have more [p. 90] likelihood of contact with them than those who live farther away, and that if any difference in behaviour between the « near » French and the « far » ones can be found, that difference will be a consequence of the difference in contact. The inference, once again, depends on ensuring that the « near » and « far » French are similar in respects other than distance from the English, and we shall try to ensure this as much as it is possible.

In the same way, people who live near cities may be expected to be relatively exposed to the social psychological influences of urban life : a farmer who lives within a few miles of a city visits it more often, has more friends and relatives who live in it, receives more visitors from it, enters more often into commercial contacts with city people, than a farmer who lives farther away. If this is not true in each individual case, it is certainly true on the average.

Perhaps the most notable instance of diffusion in history is the contemporary spread of ways, identified as « modern », which follow the industrial revolution into corners of the world where traditional ways have been dominant. Extensive data have been presented on one aspect of this many-sided diffusion, namely change in family size. Most writers of differential fertility, whether sociological or biological in their orientation, would recognize some affiliation of their subject to the industrial revolution.

Throughout western countries, it has been the better-off people, the urban, the educated, who have most quickly and completely taken on the small-family pattern. This route of acceptance recalls the

movements of fashion whose travel, down prestige gradients, has been noted by Sapir <sup>12</sup>.

French-Canadian families have always been large and they are still large. A rate of 63 births per thousand inhabitants was shown in the 1660's, and the level stayed not much below this until the middle of the 19th century <sup>13</sup>. In the past 100 years, there has been some drop: the lowest point, 25 per thousand, was reached in the 1930's, while the post-war period has been consistently around 30. The trend of births is made somewhat obscure by reason of the extraordinary decline in the thirties and the recovery in the forties. The following table shows, however, [p. 91] that French and total birth rates have, to some extent, come together over the past 20 years.

TABLE 10  
BIRTH RATES FOR FRENCH AND OTHER ORIGINS  
FOR CANADA, 1931-51

	All origins	French	Others
<b>1931</b>			
Female Population 15-44 years	2,306,528	651,188	1,655,340
Births	240,473	92,332	148,141
Rate per 1,000 population	104	142	89
<b>1941</b>			
Female Population 15-44 years	2,651,228	822,691	1,828,537
Births	255,317	101,915	153,402
Rate per 1,000 population	96	124	84
<b>1951</b>			
Female Population 15-44 years	3,103,807	981,761	2,122,046
Births	357,907	135,501	222,406
Rate per 1,000 population	115	138	105

<sup>12</sup> Edward SAPIE, *Art fashion, Encyclopedia of the Social Sciences*.

<sup>13</sup> *Province of Quebec Statistical Year-Book, 1913*.



The decline from pioneer days has undoubtedly been associated with the growth of cities, and the moving into occupations where the family has a different significance from what it has on the farm. However, this city-country difference has already been treated by both English and French writers ; as for us, we want to take up the more specialized topic of the differences that are to be found within the farm population itself.

It seems safe to assume that a new trait has a definite course through a society. It starts among the people who are on the sensitive « margin » of the society, that is, those who are psychologically more receptive, and eventually spreads into the « interior ». Our hypothesis is that, for families with a given source of livelihood, the margin has a geographical location.

[p. 92]

First, we have calculated a number of correlations of country averages, using published census tabulations. Three kinds of average for family size and two measures of distance were used ; correlations were in some cases calculated both on the original measures and on their transformation into ranks. The overall result was a partial correlation of about .50, that is, about .25 of the intercounty variance of family size was explained by distance from cities, when income, education, and age at marriage were held constant.

However, the research not only required a better control of extraneous variables than the census tabulations permit, but it required an answer controlling these, as far as possible, for individual families, not for counties. To secure this, a very small sample of 1,056 families was tabulated by hand. Because the families were selected at random, it is possible to draw inferences from the sample with known probability of error. Total children ever born to women aged 45-74, i.e. whose families were approximately complete, was the measure of fertility, and the sample was composed partly of families living near cities and partly of those living far from cities. The entire tabulation was confined to a homogeneous group : complete families in which both husband and wife were French, Catholic, born and now living on a farm,

and the husband a farm operator. Within this group, dichotomous classifications were made for present age of wife (45-54 and 55-74), age at marriage (-20 and 20-24), and years of schooling (-7 and 7 and over), so that the effect of these could be balanced out between the families near cities and those far away, without narrowing the scope of the investigation. Because income was not on the same schedule, it could not be matched for the individual farmers but only for the counties in which they lived. Two degrees of association with the English were distinguished by dividing the French families into those who lived in an enumeration area containing five or more English-speaking families, and those living in an area containing fewer than five <sup>14</sup>.

Before analyzing the 1,056 cases drawn into the sample, it was noted that the average of children ever born to mothers in distant [p. 93] places was 10.7 and in near places 9.1, a difference of 1.6 children (see Table 11). Because of the unequal numbers in the sub-classes however, this difference is not independent of the ages at marriage, etc. It would be arithmetically somewhat difficult to estimate the average number of children in near and far places separately, but the estimate of the difference between them is easily ascertained and is all that the problem requires. It turns out to be 1.28 children with a standard error of about .27.

Although it is impossible to establish that distance is the cause of the difference, as can be done in an experiment where families are allocated at random, yet, it may be said with high probability that the difference secured in the sample is the same in direction as that which would be found by examination of all of the families in the two sets of counties. In other words, the strength or the weakness of the inference is not in the sample size, but in the completeness with which variables which might be confounded with distance, have been eliminated.

Significant results were attained, not only on distance but on three of the other five variables - age at marriage, income, and years of

---

<sup>14</sup> For a more elaborate account of the method used in this analysis, see Nathan KEYFITZ, *A factorial arrangement of comparisons of family size*, *American Journal of Sociology*, vol. LVIII, No 5, March 1952, pp. 470-480.

schooling. Co-residence with the English, on the other hand, does not seem to be related to family size. Evidently it is not a trait which is carried in any important degree through the sorts of contacts which exist between English and French.

We now consider the meaning of our statistical result in broader terms, starting with the notion of a « route of acceptance » of new culture traits. It is known that in general they go from rich to poor, from city to country, etc. The change in family size which is spreading with the contemporary spread of the industrial revolution, as one of the few traits whose movement among sections of the population is statistically documented, serves as a tracer of new traits in general.

This part of our investigation is concerned with whether the route of acceptance has a spatial dimension. It is not to be expected that a space differential would be detectable in a mobile society. In a less mobile one, especially in that section of it which is on the land where the impact of changed ways of doing things is cushioned by an agriculture at least partly independent of the market, it is *a priori* likely that the handing on of new traits is to groups farther from the city by those nearer.

[p. 94]

TABLE 11

Result of hand compilation of 1,056 families from 1941 census schedules : showing for each cell average number of children ever born and number of families on which average is based

	Present Age							
	45-54				55-74			
	Age at Marriage:							
	15-19		20-24		15-19		20-24	
	Years of Schooling:							
0-6	7	06	7	06	7	0-6	7	
	<b>Average number of children</b>							
<b>Low Income, French area</b>								
Far from city	9.4	10.7	10.3	9.8	10.1	14.5	10.4	9.8
Near city	7.4	12.9	8.3	6.7	10.0	11.0	7.6	8.6
<b>Low Income, Mixed area</b>								
Far from city	12.9	10.9	8.9	9.8	8.3	12.8	8.4	9.6
Near city	9.7	11.3	9.4	7.1	9.0	9.9	8.6	8.6
<b>High Income, French area</b>								
Far from city	10.9	12.9	10.6	9.8	12.1	12.5	9.0	11.3
Near city	8.3	8.7	7.1	10.3	10.8	13.2	10.9	9.9
<b>High Income, Mixed area</b>								
Far from city	12.8	14.3	9.4	11.2	10.6	12.0	9.9	9.0
Near city	10.5	12.2	7.6	8.8	11.0	11.0	8.6	8.4
	<b>Number of Families</b>							
<b>Low Income, French area</b>								
Far from city	15	14	35	20	18	6	34	12
Near city	5	8	10	37	9	8	15	22
<b>Low Income, Mixed area</b>								
Far from city	14	11	15	21	16	9	16	17
Near city	3	7	14	49	12	8	17	29
<b>High Income, French area</b>								
Far from city	35	29	24	29	31	15	22	27
Near city	6	15	7	28	14	18	14	30
<b>High Income, Mixed area</b>								
Far from city	9	10	14	13	14	2	9	4
Near city	15	6	25	12	14	3	26	10

[p. 95]

When the statistical data are examined on this point, and they rather consistently report that, at a moment of time, there is a difference in family size, evidence of the movement is provided. Some social effect appears to flow from cities which influence the number of children born to those living near-by, but no effect flows from English-speaking people to French. Though there is undoubtedly contact between French and English, in business as in social life, the behaviour of the French farmer, in one fundamental matter at least, is not determined by it. The influence of the English-speaking world upon him appears to be via the French cities.

Nathan KEYFITZ

[p. 96]

## "Population Problems."

# COMMENTS

Oswald Hall

[Retour à la table des matières](#)

One of the universal features of industrialization is the fact that industry mobilizes a set of people, who are ignorant of the ways of the urban « work world », and makes them part of the industrial community. In so doing, to use a phrase of E.-C. Hughes, it sorts and sifts them. That is to say, it sorts and sifts them into occupational classes, into social classes, frequently by ethnic background. And it may sort them out spatially as far as their places of residence in the community are concerned. Industry, in mobilizing a work force, is a formidable mixer of diverse peoples but it also sorts and sifts on a grand level.

Mr. Keyfitz is introducing us to some of the ways in which the rural population of Quebec has been affected by industrialization. Each of the four main sections of his lucid paper invites, or indeed provokes, one to ask further questions. My comments are restricted to the second section, wherein he attempts an analysis of the flow of migrants from the farms, and considers their fates in the urban industrial

world. His statistics give us a picture of the Quebec farm workers leaving the farm, entering the urban world, where they appear as an increasing or decreasing proportion of various kinds of industrial workers. For example, we have estimates of those who have migrated in the decade 1931-41 and estimates for the proportion of French among various occupations e.g., truck drivers rose from 24 per cent of the total to 30 per cent in this decade.

These skeletal figures, set forth in a manner of precise elegance, raise a host of further questions. We have here indisputable evidence of geographical movement of farm members and similar evidence of changes in the composition of industrial occupations. What has transpired within these two changes ?

First, there has gone on a process of selection. Notwithstanding Mr. Keyfitz' statement to the contrary, we actually know little about how the migrants are selected for the urban jobs. We do have accurate, and indeed artistic, accounts of the way in which the family on the farm selects the son to inherit the farm. Miner and Arensberg have documented this matter in great detail. Every [p. 97] thirty years or so, the farm requires a new family to run it and the current family selects a son whose age, temperament, skill, marital condition, and number of children make him the desirable new owner. The process of selection is sharp and clear.

We have knowledge, too, of the way the farm family selects a member for the learned professions, though here the matter gets out of its hands a bit. It may select a son for the priesthood and make sacrifices to pay for his training, but it cannot guarantee that he will be successful in his studies. It may find itself with an unsuccessful candidate on its hands, who has to be fitted into the work world in some second-best fashion.

A different pattern emerges with the girl selected for the convent. This may be a case in which the girl has failed to find a husband, and bit by bit, comes to accept the life of the convent as the appropriate alternative. In a sense, we can say that she is selected to the convent life because she has been rejected in the marriage market. There are probably a great many places in the work world where the jobs are filled by a process of selection by rejection. Anyone who has

spent time in a hospital ward has probably realized that the people who make nice nurses also make nice wives at an early age ; other nurses go on to be supervisors.

To a considerable degree, then, the farm family selects the members to migrate by a process of rejection. It would be of interest to know in what ways the ones who leave differ from those who remain on the farms. It would be of equal importance to understand how selection by rejection affects the one who leaves. Miner has given us a vivid picture of the way in which the son, selected to remain on the farm, develops an equable, self-confident personality - in sharp contrast to that of the boys who, in Arensberg's words, know they « have to travel ».

When we turn to the industrial experiences of the rural migrants, other questions emerge. Keyfitz informs us that in the wake of such migration the numbers of French truck drivers increased substantially. He doesn't tell us whether any of these truck drivers are recent migrants from the farms. Perhaps none of these truck drivers came directly from the farms, but the farms supplied migrants who entered more lowly occupation, thereby releasing urban dwellers for the jobs as drivers. In other words the occupations of the industrial world comprise a hierarchy [p. 98] ranging from lowly, despised sorts of jobs to ones that bear prestige and are striven for. Furthermore the migrant from the farm enters this hierarchy at a very low level. Thereafter his destiny is bound up with the extent to which he and his children can climb in this hierarchy of jobs and occupations.

It would be unrealistic of course to think of the new migrants as taking over completely a set of jobs at the bottom of the job hierarchy. Rather, they share these jobs with a set of people who are urban in outlook. Part of the drama of the work world consists of the ways in which urban industrial people deal with the greenhorns from the farm. There is no automatic welcome here. The French-speaking farmers in the Eastern Townships are not automatically welcomed by the English farmers there. These self same French-speaking farmers, faced with the invasion of other French-speaking farmers from the hinterland of Quebec, are likely to apply the epithet « black feet » to the newcomers. Nor are these merely rural prejudices. The young doctor from



the sticks is not welcomed as an immediate equal colleague by his city bred co-practitioners. There is a universal process of partial acceptance and partial rejection here which is an inescapable feature of assimilating the farm migrant into the industrial labour force.

I would like to introduce one further notion. I have stressed the fact that all occupational groups are sensitive to the invasion of their ranks by any kind of newcomer - be he of a different race, language, religion, sex, age or education. In our own society, ethnic groups are concerned about their fates, as groups, in their distribution among the various occupations and jobs which comprise the work world. But no group restricts its attention solely to its own fate. If the French-speaking truck drivers increase from 24 to 30 per cent, some groups have declined proportionately. If these jobs have prestige, some group feels its fate threatened by the success of the French-speaking worker in taking over such jobs. Given our multi-cultural industrial world, this phenomenon is inescapable. The achievements of one group are the measure (to some degree) of the failures of another to keep up in this struggle. Seen in this light, the industrial work world represents a drama on a set of stages, so to speak, on which stages diverse ethnic groups are engaged, at the various points in time, in a [p. 99] struggle with other groups for representation in the multitudinous kinds of jobs and occupations which make up the industrial world. There is room on these stages for concern and anxiety, for jubilation and for renunciation, for hostility and for accommodation as these historic groups strive to achieve their varied notions of their collective destinies.

In conclusion, one might say, in the language of Kenneth Burke, that the industrial world represents, for the incoming migrant, a dramatic spectacle. The scene of the drama is the newly industrialized community. The act under way is the upward mobility of workers. The actors on the stage are the various ethnic groupings of the society. The agencies employed are the methods of selection by which workers are chosen for the various jobs and occupations. The end of the action is the fate or destiny of the ethnic groups as historic units. Mr. Keyfitz's paper represents a lucid, elegant and significant design of the stage on which the Quebec industrial spectacle is going on.

Oswald HALL

**Fin du texte**