The Vertical Mosaic
Anticipated

Status attainment and Social Mobility in Canada before 1914.
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Social Mobility in Canada

• In 1965 John Porter described Canada as a “vertical mosaic”
  • Was concerned about tradition of importing skills rather than training our own.
  • His reference points were largely in the post-1930 or even post-1945 period.

• Laurendeau-Dunton (Bi-Bi) Commission had reported, *inter alia*, that employment incomes of Francophone Quebec men were behind those of comparable Anglophones.

• But what was the nature of equality or inequality of opportunity in Canada in the first decade of the 20th Century?
Canada 1901-1911

• A period of massive social change
  – Aftermath of participation in the Boer War, population growth, immigration, urbanization & the “wheat boom”, the fight for women’s suffrage, steam engines, trains, horses, the first automobiles.

• Historians & historical demographers have used a variety of sources.
  • Contemporary publications, wills, letters, statistics published by the Provinces & by the Dominion Bureau of Statistics, especially the Canada Year Book (CYB).
  • CYB includes much information, including age-sex breakdowns from the Census by Province, school enrolments, etc.
What we already know.

• Net In-Migration
  – total immigrants 1901 to 1911 were one third of the 1901 population: not all stayed.
  – the first decade for at least 50 years during which there was more in-migration than out-migration.

• Rapid population growth in the West.
  – Saskatchewan & Alberta tripled their populations between 1901 & 1911: BC doubled: Manitoba almost doubled.
    – Much transience (Katz, 1975).

• Urban populations increased more than did rural populations.
Increase in Educational Provision Since 1901.

• Education is key to modernization: literacy, apprenticeships, skills and beyond.

• Historians have used many sources to study increases in educational provision & of school enrolments & attendance.
  • 1913 Royal Commission on Industrial Training & Technical Education
  • Galenson, Katz & Stern, MacKinnon & Minns.

• Increased urbanization & improved transportation & public provision should have removed some barriers to school attendance.
Origins of the People Shift Slightly.

- Population counts of “English” origin increased: much more than did those for Scots & Irish. Consistent with this, the count of Anglicans almost caught up with counts of Methodists & Presbyterians.

- Some small ethnic origin groups more than tripled in size 1901-1911: Austro-Hungarians; Finns; Italians; Jewish; Poles. (CYB, 1913).

- Chinese group increased by 60 per cent, despite fees imposed by the Chinese Immigration Act, 1885, with “head tax” raised in 1900 & 1903.
Some populations declined

- Rural populations actually declined in PEI, Nova Scotia, Ontario (slight decline in New Brunswick).
- Total populations declined in PEI, Yukon and North-West Territory.
- Enumerated Aboriginal population declined.
- Enumerated Black population declined slightly.
  - All this known from the Canada Year Book (CYB)
Narratives of Social Mobility

• **Upward Mobility**
• The “Wheat boom”: benefits for Montreal & Toronto: opening up the prairie Provinces.
  • Saskatchewan & Alberta created in 1905.
• Sir Joseph Flavelle, the Hogtown bacon tycoon from rural Ontario roots.
  • Biography by Michael Bliss
• **Barriers to Upward Mobility**
• Chinese in Vancouver (Kay Anderson)
• African-Canadians in Nova Scotia & Ontario (*Africville*: Dennis Magill)
• Catholics, Francophones, Manitoba schools, Aboriginals, non-British immigrants, women in most of Canada.
New data sources

- These include 5% samples from the 1901 & 1911 Censuses of Canada.
- Such “Census micro-data” permit analysis that goes beyond what’s possible with tabulations published at the time.
- Minnesota project (Ruggles) provides a benchmark of US Census micro-data (but lacks data on religion).
  - Canadian Families Project (Baskerville, Sager) & Canadian Century Research Infrastructure Project.
Examining the Geography of Minority Groups (1)

• Acadians (single origin)
  – 95% were in New Brunswick.
  – 90% of total were in Gloucester CD

• African-Canadians
  – 42% were in Nova Scotia: 36% in Ontario.
  – 11% of total in Halifax City & County CD.
  – 6% of total in Yarmouth CD.

• Chinese (single origin)
  – 74% were in BC: 26% in other provinces
  – 15% of total were in Vancouver CD
  – 12% of total were in Victoria CD
  – 10% of total were in Yale & Cariboo CD
  – 8% of total were in Comox-Atlin CD
Examining the Geography of Minority Groups (2)

• Jewish Religion
  – 43% were in Quebec
  – 35% were in Ontario
  – 15% were in Manitoba
  – 28% of total in Montreal-St. Laurent CD
  – 16% of total in Toronto Centre CD
  – 13% of total in Winnipeg CD
  – 7% of total in Maisonneuve CD
Examining population pyramids

- Published tables (Canada Year Book, 1913) already provide data for age-sex population pyramids by province, based on the corrected complete enumeration.
- But the new sample data makes it possible to examine other sub-populations.
- Examples:
  - Breakdown by Urban-Rural residence
  - Breakdown by Language groups: Aboriginal languages, Bilingual English-French, Gaelic, etc.
Rural vs. Urban: Age-Structure at 1911.

Age Distribution at 1911

geographic location classified as urban or rural.

Rural       Urban

Count

1911 Census of Canada 5% sample

Canadian Century Research Infrastructure Project
Population Pyramid of English-French Bilinguals at 1911.

Bilingual English-French (from languages commonly spoken)

Gender

Male
Female

RECODE of ageyr

Count

5% sample from 1911 Census

Canadian Century Research Infrastructure
Research Questions (1)

• How were social background factors like nativity/immigration and official language status / bilingualism as well as ethnicity, literacy, religion, marital status, urban-rural residence & gender related to occupational achievement in pre-1914 Canada?
Research Questions (2)

- What social factors determine who stays in school / gets a better level of schooling?
- Again sociologists ask about social influences such as nativity/immigration and official language status as well as size of family of origin (sibship), ethnicity, religion, urban-rural residence & gender.
Data & Sub-Populations

• Main source of data is a 5% sample from the enumerations of the 1911 Census of Canada.
  • Sample covers 370,000 individuals.

• Focus on occupations of adults aged 25 to 64
  • an age-range that includes the main part of the occupational career until retirement and excludes earlier parts where people may not yet have settled on their final trajectory.

• Focus mostly on men & non-farm men
  • Agriculture is different
Prevalence of Jobs in Agriculture

• Around one third of men aged 25-64 were employed in Agriculture in Nova Scotia, Quebec and Ontario, but 50% or more in PEI, Saskatchewan & Alberta.

• BC had the lowest percentage in agriculture at only 11%, larger industries being lumbering & transportation.
Class (Rank) of Worker within Agriculture: BC is different.

- Among “farm” men (men aged 25-64 in agriculture) roughly 90 per cent were owners, proprietors etc. in all provinces except Ontario, Manitoba and British Columbia where incidences were 85%, 81% and 66%.

- At the bottom of the ranking”, under 10% of men in agriculture were “labourers, unskilled, house servants etc.” in the Maritimes, Quebec, Saskatchewan and Alberta but 13% in Ontario, 17% in Manitoba and 27% in BC.
1911 Occupation Coding Instructions

- Dominion Bureau of Statistics (DBS) coded occupational information into “the particular industry or place where the worker is employed”.
- Also into “class or rank of the worker” within each Industry.
  - “In classifying the entries in columns 17 and 22 the clerk should take into consideration the evidence in the other columns of the schedule, such as relationship to head of family, age, sex and whether employer, employee or working on own account. The amount of salary or wages received should also be considered.” (MacPhail, 1911).
Class or rank of the worker

- The most common three categories of “Class or Rank of Worker” account for over 85% of non-farm male workers.
- (0) Owners, proprietors, manufacturers, contractors, anyone working on own account, etc. (37%)
- (6) Workers, makers, operators, operatives, journeymen, millwrights, skilled workers of all kinds, etc. (25%)
- (9) Laborers, unskilled, messengers, cleaners, haulers, etc. (25%)
  - The only other even slightly significant rank categories are:
    - (2) Superintendents, assistant superintendents, purchasing agents, head housekeepers, chief clerks, etc.
    - (7) Bookkeepers, stenographers, office clerks, cashiers, timekeepers, etc.
Predicting the odds of being an unskilled worker

- The lowest category of "Class or Rank of Worker": - Laborers, unskilled, messengers, cleaners, haulers, house servants, etc.
  - Model predicts odds (unskilled worker) from
    - Nativity / length of time in Canada
    - Age
    - Literacy
    - Catholic / Other - (most Francophones are Catholic)
    - Gender
    - Urban-Rural
    - Pairwise interaction terms.
Proportion in Unskilled Work: Ontario & Quebec Non-Farm 25-64

Estimated Marginal Means of occ2level9_unskilled

RECODE of year_of_immigration (the year of immigration to Canada for those persons)

Covariates appearing in the model are evaluated at the following values: ageyr = 38.68
Proportion in Unskilled Work: Ontario & Quebec Non-Farm 25-64

Estimated Marginal Means of occ2level9_unskilled

RECODE of year_of_immigration (the year of immigration to Canada for those persons)

Covariates appearing in the model are evaluated at the following values: ageyr = 38.68
Prop. in Unskilled Work: Ontario & Nova Scotia Non-Farm 25-64

Estimated Marginal Means of occ2|level9_unskilled

RECODE of racial_or_tribal_origin (the racial, tribal, or ethnic origin of the person)

Covariates appearing in the model are evaluated at the following values: ageyr = 38.70
Predicting Occupation Scores

- Nam-Powers-Boyd (NPB) scale for occupation (“trade or calling”) provides a continuous measure of economic aspects of socio-economic status: slightly different from Duncan’s SEI.
  - Model predicts NPB scores from:
    - Nativity / length of time in Canada
    - Age
    - Literacy
    - Catholic / Other
    - Bilingual status – English/French
    - Gender
    - Urban-Rural
    - Pairwise interaction terms.
Occupation Scores by Gender: Non-Farm, Age 25-64.

Occupation Scores (Nam Powers Boyd) By Gender

Gender

Male
Female

Count

Age 25 to 64, 5% sample from 1911 Census

Canadian Century Research Infrastructure
Quebec non-farm men aged 25-64: Effects on NPB Occupation Scores

• Looking at non-farm men aged 25-64 in Quebec the effect of being a French-speaker is to reduce the NPB score by 4.65 points as compared to average scores for Anglophones or Allophones.

• Controlling for literacy, marital status, nativity & years since immigration for those born outside Canada slightly increases the negative effects of being Francophone while also demonstrating strong negative effects of being a recent immigrant and positive effects of literacy.
Occupation Scores: Ontario & Quebec Non-Farm 25-64.

Estimated Marginal Means of RECODE of occupation_chief_occ_ind (the principal occupation or type of work) by bilang_english_french.

Covariates appearing in the model are evaluated at the following values: ageyr = 38.66.
Occupation Scores: Ontario & Quebec Non-Farm 25-64.

Estimated Marginal Means of RECODE of occupation_chief_occ_ind (the principal occupation or type of work) by bilang_english_french

Covariates appearing in the model are evaluated at the following values: ageyr = 38.66
Occupation Scores: Ontario & Nova Scotia Non-Farm 25-64.

Estimated Marginal Means of RECODE of occupation_chief_occ_ind (the principal occupation or type of work) by Gender

RECODE of racial_or_tribal_origin (the racial, tribal, or ethnic origin of the person)

Covariates appearing in the model are evaluated at the following values: ageyr = 38.71
Nova Scotia Non-farm men aged 25-64

- French-speakers had NPB scores on average 11 points lower than English-speakers.
- Nova Scotians of African origin had scores ten points lower than those of the majority population.
- Catholics (overlapping with Francophones) had significantly lower NPB scores.
Occupation Scores: British Columbia Non-Farm 25-64.

Estimated Marginal Means of RECODE of occupation_chief_occ_ind (the principal occupation or type of work) by geographic location classified as urban or rural. 
- Rural
- Urban

Covariates appearing in the model are evaluated at the following values: ageyr = 36.31
Occupation Scores: British Columbia Non-Farm 25-64.

Estimated Marginal Means of RECODE of occupation_chief_occ_ind (the principal occupation or type of work) by Gender

RECODE of racial_or_tribal_origin (the racial, tribal, or ethnic origin of the person)

Covariates appearing in the model are evaluated at the following values: ageyr = 36.31
Occupation Scores: Prairie Provinces Non-Farm 25-64.

Estimated Marginal Means of `RECODE of occupation_chief_occ_ind` (the principal occupation or type of work) by

Gender
- Male
- Female

Covariates appearing in the model are evaluated at the following values: ageyr = 35.17
Investment in the next generation: late teenagers in school

• We can predict investment in the education of the next generation (family foregoes child’s earnings): whether late teenagers attend school at least 4 months in 1910.

• We define “teenage school attendance” as 15-19 year olds being in school (Katz and Stern, 2006: 58).
  – Model predicts odds(4-12 months in school) from
    • Age
    • Bilingual English-French
    • Catholic / Other
    • Gender
    • Urban-Rural
    • Pairwise interaction terms.
Proportion 15-19 school attendance: Ontario & Quebec
Proportion 15-19 school attendance: Ontario & Quebec

Estimated Marginal Means of RECODE of in_school_months_amount (the number of months the person attended an i
Proportion 15-19 school attendance: Ontario & Quebec

Estimated Marginal Means of RECODE of in_school_months_amount (the number of months the person attended an i

ageyr

geographic location classified as urban or rural.
- Rural
- Urban
BC 15-19 year olds.

- Chinese origin teenagers had much lower odds of attending school. (Numbers too small for Japanese origin teenagers).
- As expected those living in urban areas have higher odds of school attendance.
Maritime 15-19 year olds.

• The French-language was associated with lower odds of attending school (odds ratio 0.50) as was the Catholic religion (odds ratio 0.77). Of course these overlap.
• African-Canadians had significantly lower odds of school attendance.
• As in Ontario girls had higher odds of high school attendance.
Conclusions

• Great changes were occurring in Canada around 1911: exploding populations in the West & rapid urbanization.
• Socially patterned inequality abounded in occupational attainment & educational investment at 1911, as expected.
Further Directions

• Look at spatial distributions
  – Make more use of extensive geo-coding in the data.

• Validate with contextual data.
  – from contemporary newspaper reports, etc.

• Generate family-level & community-level variables & add them to individual records.
  – Family size & composition; community size & type of industry.
    – cf. Lucas, Milltown, Minetown, Railtown.
Limitations

• Possible under-enumeration of illegal immigrants.
• Women’s work not always counted as such.
• Possible enumerator variation in recording identities such as “Acadian”.
• Possible regional variability in enumeration of Aboriginal populations.
• Possible “passing” by people with stigmatized ethnic identities.
• Possible “sanitizing” or other zealous editing of sex-worker occupations etc.
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