

# Exploring 50 Years of Canadian Theses<sup>1</sup> on Co-operatives

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This research project mines the Theses Canada Portal of Library and Archives Canada (LAC) to explore and offer some basic aggregated descriptions of a corpus of 424 Canadian university theses. The original question that this research attempted to answer was “how many university graduate theses relating to co-operative enterprises are produced annually in Canada?” As it turns out, the results of the analysis show that over the 1970-2012 period, the average number of Canadian university theses on co-operatives and credit unions is around 10 per year, with the numbers varying between 11 and 15 for the most recent years. This descriptive and exploratory project presents other interesting information that will enable us to get a clearer picture of the research on co-operatives done by graduate students at Canadian universities during the last half-century.

## Introduction

Researchers and scholars who are familiar with the academic milieu in Canada would probably agree that both teaching and research on co-operatives are relatively marginal activities outside of a few exceptional institutions such as the *University of Victoria*, the *University of Saskatchewan*, the *Université de Sherbrooke*, and perhaps a few others. To provide an illustration, my own institution, which is a medium-sized Canadian university with a large Faculty of Arts and a business school, offers absolutely no course (none) dealing specifically with co-operatives or the co-op model! In fact, searching the UNB website using the keyword “co-operative” only brings up information about what is called in Canada “co-op education” (i.e., internship programs that have nothing to do with co-operative enterprises) or the link to very popular College Hill Day Care Co-op., Ltd (which I am told by colleagues has a long waiting list).

Not surprisingly, in that environment, the number of theses and dissertations produced by graduate students at Canadian universities that are centred on an

investigation of a co-op issue can be perceived as not very numerous. But what can a preliminary exploration uncover about these works and their “young” authors? Where and when were these works published? What geographic area were they primarily concerned with? What can we find out about the place occupied by theory in these theses and how many used a case study approach in their investigation? What types of co-operative enterprises were most often studied?

This short study aims at exploring these and related questions using the on-line Theses Canada Portal of Library and Archives Canada (LAC). Using a simple descriptive and correlational approach, it will also point to some observations that can be made regarding patterns found in this data. Finally, applying central tendencies to the variable distributions, this paper presents a composite sketch on the typical graduate student researcher working on co-operatives in Canada<sup>2</sup>.

## Methodology

The data we derived for this study stem from a systematic exploration of Theses Canada, an on-line comprehensive repository of Canadian theses (both Master’s and Doctoral) managed by LAC through collaboration with a large number of Canadian universities who voluntarily participate in this program (see [www.collectionscanada.gc.ca/ThesesCanada](http://www.collectionscanada.gc.ca/ThesesCanada)). Participating universities submit theses either in electronic format or on microfiches. The website provides easily accessible basic bibliographic information on each of the entries (including name of the author, title of the thesis, series and publishing information, as well as abstracts which were available in about 44% of cases). The Theses Canada program started in 1965<sup>3</sup> and by 1975 28 universities were providing submissions. Now more than 60 Canadian universities are submitting theses. While one can obtain the theses either electronically or on microfiches, for this study the actual theses were not consulted. Only the electronic card index entry for each thesis was used.

In the Fall of 2013, the Theses Canada dataset contained over 251,000 electronic theses, plus a larger (but undetermined) number of older ones on microfiches (personal communication with the IT Branch of LAC). Minimal search functions are offered on-line for retrieval purposes. Searches can be entered for the name of the author, title of the thesis, subjects, keywords, bibliographic information notes, abstract of the thesis (if applicable), as well via an AMICUS number (an ID number that serves as a search bypass) or the ISBN if known. Searches can be limited to a specific university, degree date, or language. More advanced searches can combine some of these selections.

In the case of the searches we performed, we selected *all years* and *any language* (that is, English and French). A number of title keywords we used (see Table 1 below)

started with “**co-operative**”, “**co-operatives**”, “**co-op**”, and “**co-ops**”. It was determined that the type of search that was more valid and returning the least number of false-positives was the title keyword search. Hence, to be included in this study, the thesis had to be in the existing Theses Canada collection and had to have one of the keywords listed in Table 1 in its title. We are relatively confident that a thesis about co-operatives is likely to have at least one of these keyword variations in its title as titles for theses tend to be fairly descriptive in our experience.<sup>4</sup> The use of the keyword “co-operation” produced too many false-positives relating to international co-operation between countries (political science theses, for instance). It was therefore not used.

#### - **Exclusion and Inclusion in the Study**

Even when using our selected keywords a number of false-positives had to be removed from the sample either by looking at the title only in fairly obvious cases or by reading the abstract in more “borderline” entries. Among the excluded entries were, for example, those covering **co-operative education** which, in the Canadian context at least, refers to internships as part of an education program. However, the theses dealing with **adult co-op education** (learning about the co-op model) were obviously left in the sample.

Other theses excluded used the word “co-operative” as an adjective as in “co-operative federalism” (political science) or “co-operative discussions” versus confrontational discussions (psychology). More difficult selection decisions had to be made regarding theses about the Co-operative Commonwealth Federation (CCF), a social democratic party with roots in the co-op movement that preceded the current New Democratic Party (NDP) in Canada. In cases where the thesis examined the CCF essentially as a political party it was excluded from the study. However, in cases where the thesis was about the support of CCF governments for co-operative development it was kept in the sample.

Some exclusion decisions were easy to make when the theses were from the natural sciences and engineering fields. So, theses about co-operative Computer Assisted Design in engineering, co-operation in evolutionary genetics, and co-operative interactions among proteins were excluded. The field of computer science also makes frequent references to cooperative work between computers that we did not retain in our records. Here is an illustration of a specific example of a thesis title, from biology, that did not make it in our study:

Bennett, N.L. (1979). *Some aspects of co-operative pup-rearing in a pack of captive timber wolves (Canis lupus)*. M.Sc. Thesis. Halifax: Dalhousie University.

Similarly, when using the title keyword “Desjardins” (a large co-operative bank in Quebec) some of the entries found and excluded as false-positives had to do with studies of the *Complexe Desjardins* in Montreal, the actual building housing (among other things) the head office of Desjardins. A number of theses dealing with the work of poets named “Desjardins” were also excluded. Hence, even when searching with title keywords that are clearly relevant for our search, we generated many irrelevant records that had to be excluded from the study.

The dataset also required some cleaning as a few theses had received two entries (two different AMICUS #) in the system. We identified and cleaned these cases (keeping one and erasing the other) by using the ISBN which is unique to each thesis. Possible code cleaning was performed on all variables prior to analysis (see list of variables in Appendix 1).

### **The Sample (as of November 2013)**

We did 12 separate and distinct searches using the English and French title keywords or combination of title keywords presented in Table 1 below. In total, we looked at 944 records and excluded 520 of them for being either duplicates (found before in a previous search) or “false positives” (that is to say that they contained at least one of the title keywords but did not pertain to co-operatives or the co-op movement). This leaves us with a tally of 424 valid thesis records forming the sample of this study.

We believe that those 424 records represent the bulk of theses on co-operatives contained in the Theses Canada dataset. Of course, it is possible that some theses pertaining to co-operatives have been overlooked if their title gives no clear indication that this is what they are about. It has been suggested to us that other terminology such as the larger concept of “social economy” should have been explored as well. However, as part of the present study, we elected to restrict our focus more specifically to co-operatives. In the end, however, it is not possible to estimate with certainty how close the sample in this study is to the population formed by all the theses published on co-operatives by Canadian universities.

**Table 1: Building-up the Sample<sup>5</sup>**

<b>Title Keywords Used in Search</b>	<b>Number of Records Found</b>	<b>Number of Records Excluded (false positive and duplicates)</b>	<b>Number of Records Kept in the Study</b>
“Co-operatives” OR “Co-operatives”	156	43	113
“Co-ops” OR “Co-op”	20	18	2
“Cooperatives” OR “Cooperative”	627	387	240
“Credit Unions” OR “Credit Union”	4	1	3
“Caisses Populaires” OR “Caisse Populaire”	9	0	9
“Desjardins”	102	55	47
“Caisses” AND “Acadiennes”	2	0	2
“Caisse” AND “Epargne”	1	0	1
“Caisses” AND “Epargne”	5	0	5
“Cooperant” OR “Cooperants”	14	13	1
“Cooperator” OR “Cooperators”	3	2	1
“Cooperativeness”	1	1	0
<b>Total</b>	<b>944</b>	<b>520</b>	<b>424</b>

## Results

In this section we present the results of our analysis by focusing on issues of space (geography), time, and demographic characteristic of the authors (including type and level of university degree obtained). We also briefly touch on the choice of method and on the place afforded to theory in the theses. Finally, we attempt with limited success to categorize the co-operatives studied by types or organization and types of activity (industry).

- **Location, Geographic Focus and Internationalization**

In this section we analyze where the thesis was published (university, province and region of Canada), what part(s) of the country it was focused on, or whether it had an international focus outside of Canada.

We found that 36 different Canadian universities published at least one thesis on a cooperative-related topic. Table 2 below presents the top ten institutions in descending order. These 10 universities published nearly 75% of all the theses in the sample. At the other end of the distribution, seven universities published only one or two theses. The three top producing universities (Sherbrooke, Laval and UQAM) are all from Quebec and published almost half of the theses in the study. In total, five of the top ten positions are occupied by institutions located in Quebec.

**Table 2: Theses by University**

<b>University</b>	<b>Freq.</b>	<b>Valid %</b>	<b>Cum. %</b>
1. U de Sherbrooke	134	31.6	31.6
2. U Laval	40	9.4	41.0
3. UQAM	37	8.7	49.8
4. U of Saskatchewan	22	5.2	55.0
5. U of Manitoba	17	4.0	59.0
6. McGill Univ.	15	3.5	62.5
7. U of Guelph	14	3.3	65.8
8. U of Alberta	13	3.1	68.9
9. U of Toronto	12	2.8	71.7
10. UQAC	11	2.6	74.3
Others (n=26 Univ.)	109	25.7	100
<b>Total</b>	<b>424</b>	<b>100</b>	<b>100</b>

If we look at the frequency distribution of theses by province (Table 3) we find Quebec and Ontario at the top, followed by British Columbia, Saskatchewan, Alberta and Manitoba. The Atlantic Provinces are at the bottom of the distribution and no thesis was published in PEI or in the territories. Using the distribution of the Canadian population in 2012 for a comparison, we find that in relative terms Quebec, Saskatchewan, and Manitoba are the three provinces that publish above their demographic weight.

**Table 3: Theses by Province of University**

Province	Freq.	Valid %	Cum. %	% Can. Pop.
1. Quebec	253	59.7	59.7	23.1
2. Ontario	58	13.7	73.3	38.7
3. British Columbia	28	6.6	80.0	13.3
4. Saskatchewan	27	6.4	86.3	3.1
5. Alberta	22	5.2	91.5	11.1
6. Manitoba	17	4.0	95.5	3.6
7. Nova Scotia	10	2.4	97.9	2.7
8. New Brunswick	7	1.7	99.5	2.2
9. Newfoundland	2	0.5	100	1.5
10. PEI & Territories	0	0.0	100	0.7
<b>Total</b>	424	100	100	100

Another way to look at the information presented in Table 3 (above) is to collapse the results to show them distributed into just three regions (Western, Central and Atlantic Canada). This is presented in Table 4 where, because of the performance of Quebec, Central Canada is seen (below) as producing 73% of the theses with 62% of the Canadian population.

**Table 4: Theses by Region of Publication**

Province	Freq.	Valid %	Cum. %	% Can. Pop.*
1. Central Canada	311	73.3	73.3	61.8
2. Western Canada	94	22.2	95.5	31.1
3. Atlantic Canada	19	4.5	100	6.4
<b>Total</b>	424	100	100	*99.3

\*Note: The Territories (0.7% of the population) are excluded.

Where the theses were published is a different question from the geographic location on which the work was focused. For example, a thesis published by a university located in Ontario might be about a co-operative located in British Columbia or Saskatchewan, etc. We turn next to the analysis of this location focus. Table 5 shows that in 7.8% of cases there was no identifiable or relevant geographic focus to be found and that in 35.9% the focus was international (one or several foreign countries). Quebec was the location focus of 32.8% of theses and Canada as a whole was the focus of 5.4% of works examined.

**Table 5: Theses by Geographic Location of Focus**

<b>Location Focus</b>	<b>Freq.</b>	<b>Valid %</b>	<b>Cum. %</b>
Foreign or International	152	35.9	35.9
Quebec	139	32.8	68.7
Not Applicable	33	7.8	76.5
Canada as a whole	23	5.4	81.9
Ontario	20	4.7	86.6
British Columbia	9	2.1	88.7
Alberta	9	2.1	90.8
Saskatchewan	9	2.1	92.9
Manitoba	8	1.9	92.8
Multiple Provinces	7	1.7	96.5
Any Atlantic Provinces	15	3.5	100
<b>Total</b>	<b>424</b>	<b>100</b>	<b>100</b>

As seen in Table 5 above, more than a third of the theses had a foreign or international focus. This is interesting and is due in part (but not only) to the presence of foreign or international students doing graduate work at Canadian universities. No fewer than 52 different countries are mentioned in the title or abstract of the theses investigated in this study. The most frequent foreign countries are Rwanda (n=11), Senegal (n=8), Democratic Republic of Congo (n=7), Gabon (n=7), and Brazil (n=7). With the exception of Brazil, the most often mentioned foreign countries are French-speaking African countries. Many students from these countries come to study in Quebec and, in the case of those working on co-operatives, they often attend the *Université de Sherbrooke*.

Table 6 (below) shows the distribution of all 152 foreign-focused theses grouped by continents. Included in this table are 16 theses with a focus on multiple foreign countries. The domination of the interest for Africa is clearly evident with nearly half of the foreign-focused theses pertaining to an African country.

**Table 6: Theses by Continent of Focus (excluding those focusing on Canada)**

<b>Continent</b>	<b>Freq.</b>	<b>Valid %</b>	<b>Cum. %</b>
Africa	68	44.7	44.7
N. America (less Canada)	25	16.4	61.1
S. America	19	12.5	73.6
Asia	16	10.5	84.1
Europe	6	4.0	88.1
Oceania	2	1.3	89.4
Multiple Continents	16	10.6	100
<b>Total</b>	<b>152</b>	<b>100</b>	<b>100</b>



\*Notes: Table excludes theses with focus on Canada.  
North America includes Caribbean countries.

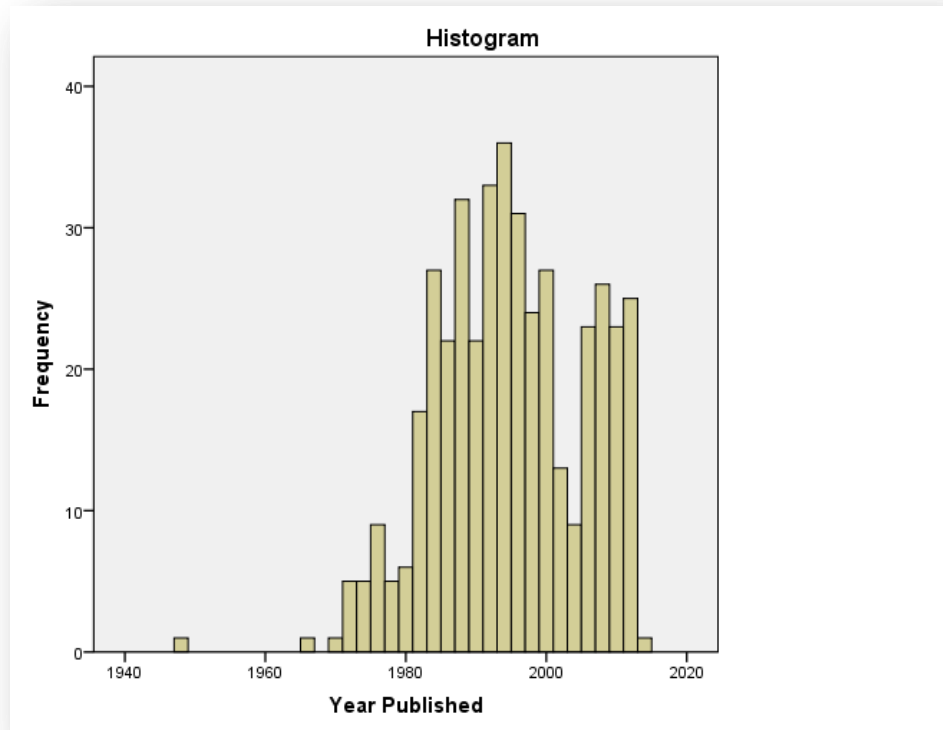
## - **Years of Publication and Temporal Patterns**

In this section we describe when the theses were published and explore the temporal distribution of the sample. The 424 theses in this study are distributed over a range of 65 years with the earlier thesis dating back to 1948 while the most recent one was published in 2013.<sup>6</sup>

The temporal distribution, presented below in Figure 1, has three outliers that should probably be excluded from the analysis in terms of identifying patterns or trends. We find one isolated thesis in 1948 and another one as well in 1965, but nothing in between or just prior to or after these dates. Starting with 1970, we find at least one thesis per year and every year until 2013, but the results for that last year (2013) are obviously incomplete (this paper was written in November and December 2013). So the data for 1948, 1965 and 2013 are likely to be incomplete and should be taken with caution. Excluding these three years, we are left with 421 theses distributed over 42 consecutive years for an average of 10 theses per year for the entire period under review.

However, when we look at the distribution (Figure 1) it is apparent that there is considerable variation over this period and that some (still unexplained) patterns emerge. The distribution can be described in three periods. First, from 1970 onward we find a rapid and relatively steady expansion in the number of theses, culminating with a count of 23 in 1992, the modal year. Second, after 1992 we observe a rapid and fairly steady decline in the number of theses reaching a bottom in 2004 with only two theses recorded. Finally, the 2005-2012 periods shows a stable plateau of 11-to-15 theses per year. While the first phase of growth could be related to the expansion of the university system in Canada during those years, the findings of the second phase are more difficult to explain. The third and final phase seems to indicate a stable trend in recent years that could perhaps be related to an increase in research funding for the social economy provided by the Social Sciences and Humanities Research Council of Canada between 2005 and 2011. It is not known at this time whether some of the trends observed are partly artefacts related to accuracy issues with the LAC cataloguing system over the study period.

**Figure 1: Publication Year of Theses**



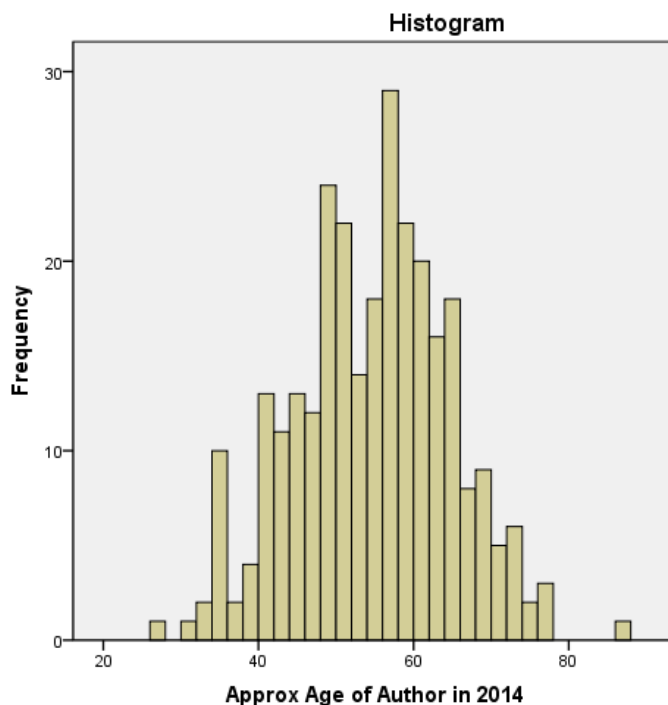
**- Demographic Characteristics:  
What do we know about the gender, age, and language of the authors?**

The data available from the Theses Canada system does not include specific information about the gender of the authors. We created our gender variable by examining the first (given) name of the authors. For Christian names the gender identification was generally easy but more difficult when faced with Asian or African names. When faced with a doubt as to the gender of the author we proceeded with the following steps to resolve the issue. First we searched for the specific person on the internet. This proved to be very easy as many of the authors have developed successful professional careers and have a presence on the web (information about their profile was available, etc.). When this first step failed, we looked for information (including photos) of people with the same name. When the results of this search were consistent regarding gender identity the problem was thus solved. After using that second step, we were left with only four cases for which we were still unclear as to how to code the gender variable. For these four gender “don’t knows” we randomly assigned a gender, resulting in three of them being classified as male and one as female. In the end the distribution shows a 60/40 split, with 59.4% males and 40.6% female.

As for the age of the authors, we used the year-of-birth information available from Theses Canada for 286 cases (the information is missing for 138 cases) to create two other distinct (but related) variables: “approximate age in 2014” and “approximate age at time of publication” (with the help of the “year of publication” information).

The authors of the theses were born between 1928 and 1987 (a range of 59 years). The centre of the distribution (mean) is standing at 1959 while the modal value (17 births) is standing at 1966. This means that, assuming that they are all still alive in 2014, they are currently aged between 27 and 86 years old with a mean age of 54 and a modal age of 48. The bulk of the authors are thus baby boomers born between 1946 and 1965 (Figure 2). As this generation ages and retires, it will be crucial for co-op research in Canada to renew itself by preparing a new crop of researchers.

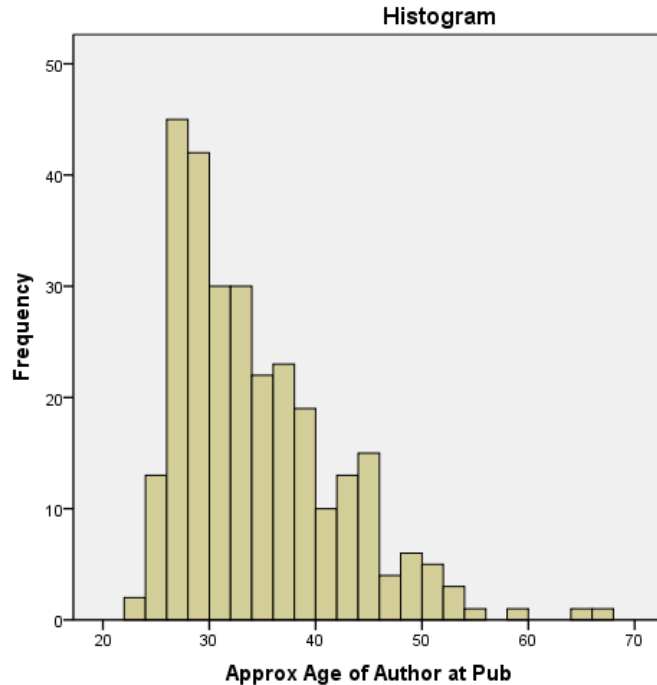
**Figure 2: Approximate Age of Author in 2014**



The shape of the distribution for the “age at time of publication” looks obviously quite different than that of the “age in 2014” variable. The oldest author at time of publication was 66 years old and the youngest a precocious 23 years old (for a smaller range of 43 years). The modal value was 28 years old while the mean stands at 34 and the median at 32 (Figure 3). The age at time of publication is naturally influenced by the level of graduate degree completed. Hence, Master’s theses were completed at a mean age of

33 while Doctoral degrees were completed in average at six years older, at the age of 39.

**Figure 3: Approximate Age at Time of Publication**



A majority of authors published their work in French (57%) and the rest in English (43%) with the exception of one thesis that was published in Spanish at UQAM. The choice of some of our title keywords for searches (for instance the inclusion of “Desjardins”) might have had an influence on this language distribution. Not surprisingly, 95% of theses published in French are from Quebec-based universities. More curiously, there is a relationship between gender and language of publication as the male authors are more likely to be French-speaking (68.2% vs. 47.5% English) while female authors are more likely to be English-speaking (52.5% vs. 31.8% French).<sup>7</sup>

#### **- Degree Level and Academic Discipline**

Most (82.5%) of Canadian theses on co-operatives identified in this study are at the Master’s level, and the rest (17.5%) at the Doctoral level (Ph.D. and D.B.A.). Doctoral theses tend to be more recent with a mean date of publication of 1998 versus 1993 for Master’s theses.<sup>8</sup> Doctoral theses are more likely to be published in English than in

French (23.2% vs. 13.2%), while the opposite is true for Master's theses (86% in French vs 76.8% in English).<sup>9</sup>

The Theses Canada system provides little or no information on the disciplines associated with the PhD and MA cases. The largest category is the M.A. or Master's of Arts which is capturing 57% of all theses (Table 7). Unfortunately, there are no clear indications as to the specific disciplines of the Arts degrees so we do not know how many of them were in anthropology, economics, political science or sociology, etc.

Master's of Science (M.Sc.) degrees, that generally cover subjects such as accounting or finance, represent 12.3% of theses while Master's of Business Administration (M.B.A. and equivalent) degrees capture just fewer than 6% of cases. Among the remaining theses we find degrees in Planning, Social Work, Environmental Studies, Architecture, Law and other disciplines.

**Table 7: Types of University Degrees**

<b>Location Focus</b>	<b>Freq.</b>	<b>Valid %</b>	<b>Cum. %</b>
Doctoral (Ph.D. & D.B.A.)	74	17.5	17.5
M.A. (various disciplines)	243	57.3	74.8
M.Sc.	52	12.3	87.0
M.B.A (and equivalent)	25	5.9	92.9
M. Planning	8	1.9	94.8
M.S.W. (Social Work)	8	1.9	96.7
M. Environmental Studies	6	1.4	98.1
M. Architecture	4	0.9	99.1
LL.M. (Law Master's)	2	0.5	99.5
Others	2	0.4	100
<b>Total</b>	<b>424</b>	<b>100</b>	<b>100</b>

**- The Use of Theory and Method**

One could argue that, in a sense, most graduate theses probably contain some elements of theory. Whether this is true or not is impossible for us to say regarding the theses covered in this study. Using the limited information available from the title and from the abstract (when available), we coded each thesis in a binary way. Was there (yes or no) a clear and obvious focus on theory in the thesis? All cases in doubt or the "unsure" were coded as "no". Therefore our result indicates only the cases where there was a clear theoretical focus, as in this thesis for instance:

Johnston, H.E. (1999). *Social movement identity: An application of the theory to the cooperative housing movement in Toronto*. M.A. Thesis, Sherbrooke: Université de Sherbrooke.

Theoretically-oriented theses are not very numerous as only 21% of cases have an identifiable theoretical bent while 79% do not. We do not dispose of reliable comparable data from other fields, but at face value this result would seem to indicate that the academic research on co-operatives performed by graduate students in Canadian universities tends to be rather a-theoretical.

The presence of a clear theoretical focus is more common in doctoral theses (39.2%) than in Master's theses (17.1%)<sup>10</sup> and more common in English language theses (29.8%) than in French language ones (14.5%).<sup>11</sup> There is also a slight tendency to find a clear theoretical focus in more recent theses versus older ones (mean years of publication: 1996 vs. 1993).<sup>12</sup> Finally, a clear focus on theory is more likely to be present in theses not using the case study approach (27%) than in theses who do (13.9%).<sup>13</sup>

With regards to methods used on the theses, again the type of information we were working with did not enable us to create a proper typology of methodological approaches utilized. We limited our focus in this matter to distinguishing theses that used a case study approach from those who did not. What exactly constitutes a “case study” is open to interpretation (Yin, 2013). To code this variable we used two criteria (only one needed to be met). First, theses self-described as case studies in the title or in the abstract were coded as using this approach. Second, we also coded as case studies the theses clearly focusing on only one organization. In these cases, the name of the co-operative is generally included in the title. The example below actually met both criteria:

Gao, H. (1993). *CRS Worker's Cooperative: A case study in cooperative evolution and survival*. M.A. Thesis. Burnaby: Simon Fraser University.

Theses focusing on several co-operatives active in one particular industrial sector or country were not coded as using a case study approach and therefore our procedure was more restrictive than liberal. Using this process we still found that 46% of theses in this study were using a case study approach against 54% that did not. The case study approach can thus be said to be one of the favourite methods used in the study of co-operatives by graduate students at Canadian universities!

As mentioned earlier, theses using the case study approach are less likely to have a clear theoretical focus. They are also more likely to be at the Master's level (48.9%) than at the doctoral level (31.1%).<sup>14</sup> Moreover, the case study approach is more popular among female researchers (54.7%) compared to male researchers (39%).<sup>15</sup> The mean age of researchers using the case study approach (52 years old) is a little lower than for those not using this approach (55 years old).<sup>16</sup>

#### - Types, Activity, or Industry

Categorizing co-operatives is a perilous exercise at the best of times (see the attempt by Thériault et al., 2008, for Atlantic Canada). Paradoxically, this exercise is made increasingly difficult in recent years by the dynamic development of new and hybrid types of co-operatives that do not fit neatly in pre-existing categories. To this we must add the fact that many co-operatives are active in more than one field of activity simultaneously. Nevertheless, we attempt below to provide some breakdowns based first on the types of co-operatives (nature of the organizations) and second on its area of activity (industry). In both cases, our departure point was not an existing typology but what could be found through our searches of the Theses Canada Portal.

We know little about the nature or specific types of co-operative studied in the theses because this information is often not available from the title or even the abstract. Moreover, co-operatives can be (and are) classified in many ways. There is still not a single universally accepted typology of co-operatives and one can in fact easily find several typologies offering a variety of types.<sup>17</sup> Working from what could be gleaned from the title and abstract of the theses in the sample, Table 8 presents a tentative breakdown on the main types of co-operatives studied in theses analysed in our research. The results must be taken with caution as a number of judgement calls had to be made in the coding. A women's co-operative, for instance, could also have been described as a craft *producer* organization.

**Table 8: Main Types of Co-operatives Reported in Theses**

<b>Types of Co-operatives</b>	<b>Freq.</b>	<b>Valid %</b>	<b>Cum. %</b>
Financial Co-op	97	22.9	22.9
Producer Co-op	80	18.9	41.8
Housing Co-op	48	11.3	53.1
Worker's Co-op	21	4.9	58.0
Consumer Co-op	16	3.8	61.8
Multi-stakeholder Co-op	16	3.8	65.6
Women's Co-op	9	2.1	67.7
Other or Unknown	137	32.3	100
<b>Total</b>	<b>424</b>	<b>100</b>	<b>100</b>

The picture is perhaps a little clearer regarding the sector or activity or industry in which the co-operatives covered in the theses belong. But there again we worked with limited information at hand. We first used the categories or labels reported by the authors to locate the co-operatives the best we could into the North American Industry Classification System (Statistics Canada, 2012).

Table 9 (below) shows that the majority of co-operatives studied in the theses were active either in agriculture, fishing or forestry (23.8), the financial sector (23.3%) or in housing (11.8%). As any researcher who has tried to fit co-operatives in a system of mutually exclusive and exhaustive categories knows, our results in this table are probably imperfect given the breadth of economic and social activities in which co-operatives are seen. This is unavoidable, given that the results were derived from the limited information available in the title of the theses or identifiable in their abstract.

**Table 9: Industry of Co-operative (with cognate NAICS Code)**

<b>Industry and Cognate NAICS Code</b>	<b>Freq.</b>	<b>Valid %</b>	<b>Cum. %</b>
Agriculture, Fishing or Forestry (11)	101	23.8	23.8
Financial (52)	99	23.3	47.1
Housing (53)	50	11.8	58.9
Retail including Food (44-45)	21	5.0	63.9
Health (62)	9	2.1	66.0
Energy (21)	6	1.4	67.4
Education (61)	6	1.4	68.8
Other, Unknown or Not Applicable	132	31.2	100
<b>Total</b>	<b>424</b>	<b>100</b>	<b>100</b>

## **Discussion, Limitations and Conclusion**

This study has been an exercise in researching co-operative academic research in Canada. It looked for patterns in time, places, and characteristics of the authors. As such, it can be associated with the sociology of science and more specifically with Merton's (1973) functionalist tradition within the sociology of science. It also bears some resemblance to modern bibliometric or scientometric approaches, except that no attempt was made here at assessing the impact of these publications through some sort of citation analysis. This would be an interesting avenue for further research.



More modestly, the aim was to briefly explore and describe a large, and, we believe, fairly exhaustive, corpus of theses published by Canadian universities during the last 40 or 50 years. The interest of this exercise resides in part in its novelty as it has never been attempted to our knowledge. It contributes to our understanding on the research that is done in Canadian universities about co-operatives, a subject that is not often discussed.

Questions and doubts will remain, of course, about the representativeness of the non-random sample used. The size of the population is unknown and it is impossible to estimate the sampling error. What we attempted to do was to build a quasi-census by including in the corpus all the eligible cases we could find using fairly generic title key words. We did some spot checking using the names of a few specific well known Canadian co-operatives, such as Mountain Equipment Co-op (MEC) or Vancity, to find that the cases retrieved with those key words were already captured by our more generic searches. Of course, the option to search for the specific name of every co-operative in Canada might have been theoretically desirable but was too impractical to be adopted here.

It is also important to recognize that not all university-based activities on co-operatives have been captured here. This study is narrowly focused on graduate theses. Therefore, activities at the undergraduate level (the Bachelor's degrees) are not reflected in this exercise. Moreover, even some graduate-level activities, such as MBA programs that are course-based and not involving a formal thesis, are not part of this exploration since our focus is on Master's and doctoral theses specifically.<sup>18</sup>

The main findings of this exploratory and descriptive research can be summarized as follow:

- The *Université de Sherbrooke*, where IRECUS<sup>19</sup> is located, is found to be the top producing Canadian university for theses dealing with co-operatives.
- Universities located in the Province of Quebec published nearly 60% of theses on co-operatives even though the province represents only 23% of the Canadian population.
- There is a strong international focus (especially on French-speaking Africa) in theses relating to co-operatives that have been published by Canadian universities.
- The early 1990s represent the peak period for thesis publications on co-operatives, but recent years (since 2005) have also demonstrated a solid level of activity with between 11 and 15 theses published every year.
- The theses are not generally focused on theoretical issues and the case study approach is often used as the methodology of choice.

- It remains perilous to attempt to categorize the co-operatives studied both in terms of the nature of the organization and in terms of sector of activity, with some obvious exceptions such as housing or financial co-operatives.

Finally, using central tendencies on this sample we can say that the “typical” graduate student who did a thesis on co-operatives in a Canadian university is a French-speaking male born around 1960, and thus currently aged around 54 years old, who published an M.A. thesis that was not centred on a theoretical issue but focused on a producer or a financial co-operative, when he was approximately 33 years old (in 1993) and studying at a Quebec-based university.

This short study has clarified some of the demographic and geographic characteristics of the individual researchers who author theses on co-operatives at Canadian universities. Further work will be needed in the future to understand in more depth the actual content of these theses. It would also be interesting to learn how isolated these works remain or, in the opposite, to know if they are contributing to an active academic dialogue with more recent theses referencing older ones.

## **The Author**

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## Appendix 1: List of Variables

Variable Name	Summary Description
AMICUS	ID number
Year Published	Year of Thesis publication by university
University	University issuing the thesis
Province of Univ.	Canadian province where university is located
Location Focus	Geographic focus of Thesis (if any)
Case Study?	Does the Thesis seem to be using a “case study” approach?
Degree	Degree conferred (e.g., M.A., M.B.A., Ph.D, etc.)
Co-op Type	Type of co-operative (nature of the organization)
Industry	Main area of activity or industry of the co-operative
ISBN #	International Standard Book Number
Foreign Country	What foreign country (outside Canada) is the Thesis focusing on (if any)?
Focus on Theory	Does it seem that the Thesis has a focus on theory?
Gender of Author	Gender of the author (determined using first name)
YOB of Author	Year of birth of the author (if available)
Approx. Age of Author in 2014	Approximate age of author in 2014
Approx. Age of Author at Pub.	Approximate age of author at time of publication
Master's vs PhD	Master's Thesis OR Doctoral Dissertation?
Language	Language of thesis (English, French, Other)
Regions	Canadian regions (West, Central, Atlantic)
Continents	Africa, N. America (excluding Canada but including the Caribbean countries), S. America, Asia, Europe and Oceania

## Appendix 2: Example of an Index Card Record from the Theses Canada Portal

[Next](#)

AMICUS No. 38850050

E-LOCATIONS: <http://www.collectionscanada.gc.ca/obj/thesescanada/vol2/002/MR63774.PDF>

NAME(S): \*[Gagnon, Claire, 1958-](#)

TITLE(S): Culture gap in co-operatives [microform]  
: an exploratory case study

PUBLISHER: Ottawa : Library and Archives Canada =  
Bibliothèque et Archives Canada, [2011]

DESCRIPTION: 2 microfiches.

SERIES: Canadian Theses = Thèses canadiennes.

NOTES: Thesis (M.B.A.)--University of New  
Brunswick, 2008.  
Includes bibliographical references.

STUDENT ABSTRACT: A culture profiling  
methodology was applied in a case study  
of two co-operative stores. A  
qualitative approach, comprised of  
in-depth interviews, observation and  
document review, was followed by a  
quantitative approach involving  
management, employees and current and  
past directors. The survey included the  
competitive values framework (Cameron &  
Quinn, 2006) and supplemental questions  
relating to market and quality  
orientations, and member/customer  
satisfaction and loyalty. Respondents  
from both subject co-operatives  
indicated that predominant clan  
attributes were preferred. The  
co-operative with higher self-reported  
ratings in member orientation reported  
no gap between current and preferred  
culture. The operationalization of  
member orientation and co-operative  
culture or identity as a competitive  
advantage were considered.

NUMBERS: Canadiana: 2011206793X  
ISBN: 9780494637746

COPIES: NL Stacks - Mic.F. TK- 63774  
NL Stacks - Mic.F. TK- 63774 - Copy 2

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<sup>1</sup> This paper covers only Canadian theses on co-operatives. A “Canadian thesis” is defined here as a thesis published by a Canadian university, regardless of the citizenship of its author. Consequently, a thesis defended by a Canadian citizen at a European or American university is not considered a “Canadian thesis” and is not covered in this study. The inspiration for this paper came from the author’s reading of Dr. Will van den Hoonaard 2006 exploratory study “Trends in Canadian Sociology Master’s theses in Relation to Research Ethics Review. 1995-2004” published in *the Journal of Empirical Research on Human Research Ethics*. The research for this paper was undertaken as part of the Measuring the Co-operative Difference Research Network, a Community-University Research Alliance funded by the Social Sciences and Humanities Research Council of Canada and managed by the Canadian Co-operative Association.

<sup>2</sup> Canada has a population of 34.88 million (2012).

<sup>3</sup> However the earliest entry found for this study is a thesis published at the University of Toronto by Wilfred Whyte McCutcheon dating back to 1948 (but catalogued into the system in 1976).

<sup>4</sup> Here is what the UNB School of Graduate Studies (2012) suggests to students regarding the title of their Thesis: “Your thesis/dissertation/report will be a valuable reference for other scholars only if it can be easily located within libraries. Retrieval systems use the key words in the title to locate theses/dissertations/reports. It is essential that the title be meaningful and descriptive of the content of the work.”

<sup>5</sup> Note that in Canada, credit unions and their francophone counterparts *caisses populaires* are financial institutions (co-op banks).

<sup>6</sup> It should be noted that we use the date of publication by the university as the reference date, as opposed to the date of cataloguing into the Theses Canada system which tends to be a little later (often a year or two after the publication).

<sup>7</sup> This difference of 20.7 percentage points is significant at 0.01 level (df=2, V=0.212).

<sup>8</sup> This difference in means is significant at 0.01 level (df=1, F=12.993).

<sup>9</sup> This difference of 10 percentage points is significant at 0.05 level (df=2, V=0.132).

<sup>10</sup> This difference of 22.1 percentage point is significant at 0.01 level (df=1, V=0.205). This is a genuine relationship that is replicated when controlling by language.

<sup>11</sup> This difference of 15.5 percentage points is significant at 0.01 level (df=2, V=0.188). This is a genuine relationship that is replicated when controlling by degree level.

<sup>12</sup> This difference in means is significant at 0.05 level (df=1, F=5.647).

<sup>13</sup> This difference of 13.1 percentage points is significant at 0.01 level (df=1, V=0.160).

<sup>14</sup> This difference of 17.8 percentage points is significant at the 0.01 level (df=1, V=0.135).

<sup>15</sup> This difference of 15 percentage points is significant at the 0.01 level (df=1, V=0.148).

<sup>16</sup> This difference in means is significant at the 0.01 level (df=1, F=9.429).

<sup>17</sup> For instance, Co-operatives UK ([www.uk.coop/types](http://www.uk.coop/types)) proposes four primary types (consumer, worker, enterprise, and mixed co-operatives). The Centre for Cooperatives at the University of Wisconsin ([www.coopswisc.edu/types.html](http://www.coopswisc.edu/types.html)) suggests to differentiate them according to their function and thus recognizes three types (Marketing, Purchasing and Services). The Cooperative Development Institute ([www.cdi.coop/coopsectors.html](http://www.cdi.coop/coopsectors.html)) outlines a typology with six categories (Producer, Worker, Consumer, Credit Unions, Retail or Purchasing, and Social co-operatives). The National Cooperative Business Association in the U.S. (<http://usa2012.coop/about-co-ops/types>) has a typology with five categories (Consumer, Producer, Worker, Purchasing/Shared Services, and Hybrid co-operative). The British Columbia Co-operative Association (<http://bccca.coop/content/types-co-ops>) details four categories (Consumer, Producer, Worker and Multi-stakeholder co-operatives). Finally, the Canadian Co-operative Association posts two slightly different typologies on its website, one with five types (Producer, Multi-stakeholder, Worker, Worker-Shareholder and Consumer co-operatives) at <http://coopzone.coop/en/book/print/17> and one with six types (Consumer, Financial, Producer, Worker, Multi-stakeholder, and Mutuals) at [http://www.canada2012.coop/en/what\\_is\\_a\\_cooperative/Types-of-co-operatives](http://www.canada2012.coop/en/what_is_a_cooperative/Types-of-co-operatives).

<sup>18</sup> This explains the absence of references made in this study to institutions such as Cape Breton University or Saint Mary’s University that offer some teaching about co-operatives but do not have a thesis-based MBA.

<sup>19</sup> Institut de recherche et d’éducation pour les coopératives et les mutuelles de l’Université de Sherbrooke.