ABSTRACT

Academic librarians in the overwhelming majority of Canadian universities hold academic status. This study utilizes a multiple linear regression model to identify the association between three aspects of academic status of librarians and their average salaries. It is based on a sample of 48 Canadian academic institutions and uses aggregate data from the Librarian Salary & Academic Status Survey (LSASS) over 2012-2013 to 2013-2014. The findings show that allowing librarians to serve on the Board of Governors is positively significantly associated with average librarian salaries. Using the same language for scholarly publishing in the collective agreements for librarians as for faculty does not significantly increase average librarian salaries, nor does including scholarly activities in the terms of employment for librarians. In addition to academic status, the study also identifies that average years of academic librarian experience is significantly positive to average salaries and geographic regions make mixed contributions to average salary differences across academic institutions. The findings of this study can help understand the factors that affect librarian salaries from an institutional lens.

Keywords: academic status, salary, librarian, experience, university governance, scholarship

Introduction

Academic librarians in the overwhelming majority of Canadian universities hold academic status. The rights and responsibilities of academic librarians may approximate, to varying degrees, those of faculty, however, academic status held by academic librarians in Canada does not equate to faculty status held by their counterparts in the United States (Jacobs, 2013). Academic status of librarians is recognition that their duties are integral to the academic mission of an institution. The Canadian Association of University Teachers (CAUT) has conducted a biennial Librarian Salary and Academic Status Survey (LSASS). 67 universities and 28 colleges report in the 2013-2014 LSASS which provides the best summary of academic status of librarians available. Academic status is described in terms of librarians’ trade union status and structures of representation, collective agreement language, and terms of employment and teaching activities. A detailed analysis of the 2013-2014 LSASS identifies three aspects of the academic status in which a relatively lower percentage of institutions report that they put it into practice. Specifically, 59% of the institutions report that their librarians participate on Board of

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Governors. Comparisons of contract language for librarians with that for teaching faculty show that half of the institutions indicate that they use “same or similar” contract language on scholarly publishing. As regards the terms of employment, 65% of the institutions have scholarly activities included in the terms of employment.

Salary differentials are observed among academic librarians as each Canadian university and college has its own characteristics and criteria for determining pay scales. The Librarian Salary & Academic Status Survey (LSASS) shows considerable variations in average librarian salaries among academic institutions ranging from a low of $55,856 to a high of $123,214 in 2013-2014. Academic librarian salaries have been studied for decades; however, only a handful of studies adopt empirical methodologies (Sieberta & Young 1983; Heim & Estabrook, 1983; Van House, 1986; Lee, Rogers & Grimes, 2006), none of which is focused on Canadian academic librarians. Moreover, those empirical studies primarily use individual data taking into account personal characteristics of librarians while institutional factors have not been discussed much.

This study utilizes a multiple linear regression model to identify the association between three aspects of academic status of librarians and their average salaries. The findings of this study can be added to existing research about the factors that affect librarian salaries. Research questions are:

1) Would academic institutions that allow librarians to participate in university governance bodies have higher average librarian salaries?

Participation in university governance is an integral part of academic status of librarians. Canadian universities commonly have a bicameral governance system which provides for two separate and distinct governing bodies: Senate and Board of Governors. Academic institutions vary in terms of how deeply librarians are involved in the top level university governance. This study examines librarians’ right of serving on the Board of Governors rather than the Senate because these two governing bodies have different functions. The Board of Governors generally oversees an academic institution’s property, revenues, expenditures, employees, business and affairs. It is fully accountable for the finances of the institution, including monitoring and authorizing the annual operating budget. In comparison, the Senate conducts its business through committees that bring recommendations to the Senate at regularly scheduled meetings. Senate Committees deal with the university’s academic matters, including the educational policies, curriculum matters, tenure and promotion of faculty, standards of admission of students, and long-range academic planning. As librarian salaries are part of the library operation funds, which tend to fall under the jurisdiction of the Board of Governors, this study does not include librarians’ right to participate on the Senate in the analysis.

2) Would institutions requiring librarians to pursue scholarship relate with higher average librarian salaries?

There is a general sense among librarians with academic status that they are supposed to make scholarly contributions through publications, presentations, posters and other forms of scholarship. However, academic institutions vary in their expectations for research and scholarly activities by librarians. In Leckie and Brett’s (1997) survey, research and publication
were not required for 72 percent of the Canadian university librarians (p.36). Fox’s (2007) survey of Canadian librarians showed that for 51.4 percent of survey respondents, scholarship was either required or encouraged at their university. For 35 percent of the participants, scholarship was an integral part of their professional responsibilities on an ongoing basis (P.453). Librarians are being increasingly expected to conduct research for enhancing professional development, meeting institutional requirements for promotion and tenure and contributing to the profession in the long term. Undertaking research and scholarship activities has been recognized as a core competency for 21st century academic librarians (CARL, 2007; CARL, 2010). Berg, Jacobs and Cornwall’s (2013) survey of university library administrators demonstrated a significant increase in their expectations of scholarship by librarians compared with five years ago and the trend would continue into the next five years. In this context, it is valuable to discuss if average librarian salaries would reflect institutional requirements for librarian engagement in scholarship.

3) Would average salary of librarians across academic institutions show significant regional differences?

Regional variations in librarian salaries in Canada have been reported by CAUT\(^1\). The purpose of this study is to provide more evidence about whether geographic locations have impacts on average librarian salaries.

4) Would average years of academic librarian experience be positively related with average salary of librarians?

This variable is included in the analysis because job postings for academic librarian positions predominantly state that the salary is to be determined based on experience and qualifications of job applicants. Reser and Schuneman (1992) made a content analysis of American academic library job postings and found that 82.3% of the postings preferred or required experience. Similarly, Gerolimos, Malliari and Lakovidis (2015) found that 80.5% of job advertisements for librarians in the US academic libraries stated that experience was necessary.

**Literature Review**

A majority of the empirical research has been conducted on salaries of academic librarians in the United States with fewer studies of Canadian academic librarians. ARL, CAUT, CAPAL and CARL have reported data on Canadian librarians’ salaries. Regression models are commonly used for the analysis. Analysis of salaries requires selection of some variables that may have impacts on salaries of academic librarians. These variables can be grouped into three categories based on the human capital model developed by Van House (1986): personal variables, human capital variables and job-related variables. Personal variables refer to the characteristics of librarians individually such as gender, marital status, minority status, number of children and age. Human capital variables include the highest degree held, rank, job title/position, number of

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\(^1\) CAUT Almanac of Post-Secondary Education. Table 2.10 Average Academic Librarian Salaries by Region. Retrieved from https://www.caut.ca/resources/almanac/academic-staff.
publications, years of experience and years in a position or rank. Job-related variables are the features of the institution where academic librarians work such as geographic region, enrollment size, budget size, whether a bargaining unit (or union) exists and whether librarians have faculty status and so on.

Personal and human capital variables are usually used in research on academic librarian salaries. Specifically, years of experience as a librarian is found to be a significant contributor to academic librarian salaries in many studies. Experience is critical in determining the starting salary (Reser & Schuneman, 1992), annual salary (Gerolimos, Malliari & Lakovidis, 2015) and is the most consistent and has the largest impact on librarian salary (Van House, 1986). Zumalt (2006) divided academic librarians into three categories based on years of experience: Early Career Librarians (less than 10 years), Middle Career Librarians (10-20 years) and Later Career Librarians (over 21 years). Later Career Librarians were found to earn more on average than Middle Career Librarians and Early Career Librarians. The effect of librarian research on their salaries has not been much explored. Heim and Estabrook (1983) reported that number of publications was positively associated with librarian salary.

Regarding job-related variables, a number of studies discuss librarians’ involvement in university governance. Leckie & Brett (1997) explored the relationship between faculty/academic status of Canadian university librarians and their participation in library planning and decision-making, university affairs, and professional activities. Academic status librarians earned significantly higher job satisfaction with their involvement in university affairs and promotion and tenure processes than non-academic-status librarians. However, they were not more satisfied with workload and salary. Krompart and DiFelice (1988) argued that the librarian’s participation in the university governance would increase the integration of the academic libraries and their institutions. In Wyss’ (2010) survey faculty members of ALA-accredited library schools indicated that librarians’ involvement in university governance could improve the perception among the teaching faculty of academic librarians, enable librarians to enjoy higher esteem and have a bigger voice in setting the priorities and directions of their institutions. Earlier regression analyses of American librarian salaries often examine the effects of faculty status and unionization. All public unionized institution types had a higher percent of the library budget spent on librarian salaries than private and non-unionized public institutions (Applegate, 2009). Lee, Rogers and Grimes (2006) examined the effects of labor unions on the starting salaries of academic librarians using data from survey of ARL members. The linear regression analysis results show that unionized academic librarians received a positive and significant union wage premium during 1989–1998 (p.478). A similar finding was reported in Garcha and Philips (2001) that the US academic librarians who were members of unions generally earned higher salaries than those who were not. A few studies support that academic librarians with faculty status can have the opportunity of job security through the tenure process and tend to get higher salaries (White, 1966; Hoggan, 2003; Bryan, 2007; Walters, 2016). Different from the US counterparts, librarians in an overwhelmingly majority of Canadian universities have academic status and are members of faculty associations that also act as unions representing librarians (CAUT, Part 1). Therefore, the regression model indicated below does not include faculty status or unionization as indicator variables.
Data and Methodology

Data source

The data for this study come from the Librarian Salary & Academic Status Survey (LSASS), which is a biennial survey of librarians working in Canadian universities and colleges and administered by the Canadian Association of University Teachers (CAUT). The most recent data from this survey are available for 2012-2013 and 2013-2014. This study is based on a sample of 44 universities and 4 colleges using the aggregate data for librarians in each institution including average salaries and average number of years as an academic librarian (experience). Both administrative and non-administrative librarians are included in the survey where it is determined that they are members of the same association or bargaining unit, and/or part of the same rank structure. Some of the smaller institutions only have administrative librarians, who also are generally included in the survey (CAUT, Part 1, IV.). LSASS also provides information on academic status of librarians in each institution consisting of three aspects: librarians’ trade union status and structures of representation, collective agreement language, and terms of employment and teaching activities (CAUT, Part 1, V.). Three variables are selected from each aspect of the academic status and are explained in detail in the section below.

Model

A linear regression model is established as follows to test the effects of eight variables and their combined contribution to average salaries for academic librarians.

\[
SA_{it} = \alpha_i + \beta_1 EX_{it} + \beta_2 BG_{it} + \beta_3 CA_{it} + \beta_4 TE_{it} + \beta_5 WR_{it} + \beta_6 PR_{it} + \beta_7 ER_{it} + \varepsilon_{it} \quad \text{......................... (1)}
\]

Where it denotes university i in year t.

- \(SA_{it}\) = Average salary
- \(EX_{it}\) = Average years of experience
- \(BG_{it}\) = Right of Librarians serving on Board of Governors
- \(CA_{it}\) = Collective agreement language on scholarly publishing
- \(TE_{it}\) = Terms of employment on scholarly activities
- \(WR_{it}\) = West Region
- \(PR_{it}\) = Prairie Region
- \(ER_{it}\) = East Region

Variables

Average librarian salary is the dependent variable. The analysis accounts for several indicators. They include librarians’ average years of experience, librarians’ right to serve on the Board of Governors, two dummy variables that reflect institutional requirements for librarian
engagement in scholarship, and three dummy variables for geographic regions of each institution. These variables are tested for their effects on average librarian salary.

**Average librarian salary**

Table 1 presents the descriptive statistics on average salaries for academic librarians in 48 institutions over 2012-2013 to 2013-2014. The dataset demonstrates considerable variations across the institutions in average librarian salaries ranging from a low of $53,372 to a high of $123,709 in 2012-2013, and $55,856 and $123,214 respectively in 2013-2014. The dataset follows a normal distribution.

<table>
<thead>
<tr>
<th>Period</th>
<th>Mean</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013</td>
<td>$88,018</td>
<td>$84,517</td>
<td>$53,372</td>
<td>$123,709</td>
<td>48</td>
</tr>
<tr>
<td>2013-2014</td>
<td>$89,202</td>
<td>$86,639</td>
<td>$55,856</td>
<td>$123,214</td>
<td>48</td>
</tr>
</tbody>
</table>

**Average years of experience**

A variable for experience represents the average number of years working as an academic librarian. In 2012-13 and 2013-2014 the mean value of experience as an academic librarian among institutions is nearly 15 years. Institutions vary in this measurement ranging from a minimum of 6 years to a maximum of 23 years in 2012-2013, and 7 years and 24 years respectively in 2013-2014 (Table 2).

<table>
<thead>
<tr>
<th>Period</th>
<th>Mean</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013</td>
<td>14.7</td>
<td>15.0</td>
<td>6.0</td>
<td>23.0</td>
<td>48</td>
</tr>
<tr>
<td>2013-2014</td>
<td>14.5</td>
<td>14.5</td>
<td>7.0</td>
<td>24.0</td>
<td>48</td>
</tr>
</tbody>
</table>

**Right of Librarians to serve on the Board of Governors**

In this study, an indicator is created to represent librarians’ status on the Board of Governors in each institution. It is set equal to one if librarians have rights to serve and zero otherwise. 54 percent of the institutions in the dataset report that their librarians have the right to serve on the Board of Governors.

**Institutional requirements for librarian scholarship**

Institutional requirements for scholarship by librarians are characterized using two indicator variables. The variable for collective agreement language on scholarly publishing is set equal to one if the institution uses the same or similar language in its collective agreement for librarians as for teaching faculty and zero otherwise. The variable for terms of employment on scholarly
activities is set equal to one if the institution includes scholarly activities in the terms of employment when hiring librarians and zero otherwise. 52 percent of the institutions in the dataset report that they expect librarians to perform as well as teaching faculty in scholarly publishing, which is clearly indicated in their collective agreements. 79 percent of the institutions report that they include scholarly activities in the terms of employment for librarians.

**Regions**

Three dummy variables represent the region where an institution is located. Academic institutions in British Columbia are grouped into West Region, provinces of Alberta, Manitoba and Saskatchewan into Prairie Region, Quebec\(^1\), New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador into East Region. Central Region consists of institutions in Ontario, which is used as the reference region. This analysis is expected to show how salary averages of librarians in other three regions differ from those in Ontario. Of 48 academic institutions in the dataset, 11 in the West Region, 8 in the Prairie Region, 12 in the East Region and 17 in the Central Region (Figure 1).

![Geographical Distribution of the Institutions](image)

**Figure 1 Geographical Distribution of the Institutions**

**Limitations**

There are certain limitations to the data presented herein. Firstly, this research sample only includes 48 academic institutions that have an association affiliated with CAUT. All others, which includes all of the francophone institutions, are out-of-scope. Institutions reporting fewer than three librarian counts are excluded from the salary data by CAUT and are thus excluded from this research sample. Random rounding to multiples of three (3) is used in the reporting for all institutions where there is the possibility of residual disclosure of individual data(CAUT, Part 1, VI.). In those cases, the data presented are estimates.

Secondly, some institutions are not included in this research because of missing values. as indicated in the LSASS survey documentation, some of the requested salary, work experience

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\(^1\) Only three Anglophone universities (Concordia University, McGill University and Bishop's University) are included in the dataset.
data or other information are not provided by some institutional and individual respondents. 
Most respondents, particularly in larger institutions, typically gather salary and related data 
from their institution’s administration. The data available through an institution’s employee 
information systems do not always correspond to the specific data requested for the LSASS. 
That results in missing values for some universities (LSASS 2014, Part 1, IV.).

Thirdly, this research uses aggregate data (average salary and average number of years as an 
academic librarian) for each institution. It has made it possible to examine the institutional 
factors that have not been studied in the same way before. The results would be helpful to 
understand the librarian salary determinants from an institutional perspective. However, this 
means the effects of personal characteristics (e.g. age, gender, marital status, etc.) of individual 
librarians on their salaries can not be examined in detail.

**Results and Discussion**

The model in (1) is estimated for a sample of 48 institutions participating in the LSASS survey 
observed over 2012-2013 to 2013-2014. The estimates of coefficients are presented in Table 3. 
The adjusted R-squared is 0.55, meaning that 55 percent of the variation in librarian salary 
averages among academic institutions can be explained by this model.

<table>
<thead>
<tr>
<th>Table 3 Regression Results for Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>Average years of experience</td>
</tr>
<tr>
<td>Right of librarians serving on Board of Governors</td>
</tr>
<tr>
<td>Collective agreement language on scholarly publishing</td>
</tr>
<tr>
<td>Terms of employment on scholarly activities</td>
</tr>
<tr>
<td>West Region</td>
</tr>
<tr>
<td>Prairie Region</td>
</tr>
<tr>
<td>East Region</td>
</tr>
<tr>
<td>Constant</td>
</tr>
<tr>
<td>N of Observations</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td>R² Adjusted</td>
</tr>
</tbody>
</table>

|t| *-statistics in parentheses under the estimated coefficients.

*significant at the 5% level    **significant at the 1% level
**Average years of experience is significantly positive with average librarian salaries.**

As shown in Table 3, average years of academic librarian experience is found positively associated with average librarian salaries, statistically significant at the 1% level, while holding all other variables constant. A one-year increase in average experience as an academic librarian is associated with an average increase of $1,837 in the salary average for librarians, controlling for the other independent variables. This result is consistent with earlier studies discussed in the literature review. Figure 2 allows us to see more clearly that academic librarians' salary averages increase with average experience.

**Librarians having rights to serve on the Board of Governors has a statistically significant positive relationship with average librarian salaries.**

Institutions where librarians have rights to serve on the Board of Governors are $7,848 higher in average librarian salaries, statistically significant at the 1% level, while holding all other variables constant. There are an underlying reason that may explain such a positive relationship. As the Board of Governors is a governance body at the top level, librarians’ participation increases awareness of the importance of the library and librarians in the institution. This may have an impact on setting the priorities of the institution, for example, regarding the library operating budgets to be allocated, of which a large portion is paid for library salaries/wages and benefits expenditures in libraries (Davis, 2010).

![Figure 2 Average Experience has a Positive Relationship with Average Salaries](image)

This finding provides evidence about how important it would be for librarians to participate in university governance. Faculty and librarians in Canada have raised their concerns over the waning influence of academics over the governance of institutions whether in the Senate or Board of Governors. They are seeing autocratic tendencies from their administration, which has made unilateral decisions in matters of utmost importance to the university community without adequate consultation with academic staff (University of Toronto, 2011). This has resulted in a
widening mistrust and tension between academic staff and the administration, with grave damage to the functioning of both (On the Cover, 2017). Getting higher salaries seems a minor benefit compared with fighting autocratic tendencies; however, this finding may provide additional incentive for librarians to participate in university governance.

Geographic regions vary with respect to their effects on average librarian salaries.

The negative coefficients of the three variables for geographic location indicate that compared with institutions in Ontario, the average librarian salary is $6,908 lower in the West Region (significance at the 5% level), $8,657 lower in the East Region (significance at the 1% level), and $1,350 in Prairie provinces though not statistically significant.

Why are academic librarians paid differently across regions? It is a complicated issue as many factors may contribute to the salary disparity. One important factor is the funding model for academic institutions in Canada. There are two main sources of revenue for academic institutions: government funding and student tuition fees. Provincial governments are the main funding bodies and provide the most direct operating funds to the institutions within their jurisdictions. They also monitor institutions to charge tuition fees. Tuition frameworks vary greatly between jurisdictions. Government funding in higher education and tuition fees contribution would greatly influence the total revenue in each institution and salaries for librarians as a part of the operating fund. Since 2010, all provinces except Newfoundland and Labrador have witnessed a steady increase in student tuition fees. In Ontario tuition fees as share of university revenues increased from 27.7% in 2010-2011 to 32.1% in 2013-2014, the highest ratio across Canada (Figure 3). In 2012-2013 and 2013-2014 universities in Ontario charged the highest tuition fees for Canadian and international students at both undergraduate and graduate levels (Figure 4).

Cost of living is another possible reason for the regional variation in librarian salaries because salaries are commonly adjusted for the cost of living (Stoddard, 2005). Data from Survey of Household Spending (2012-2014) show that average household expenditures in the East and West Regions are lower than those in Central Region (Ontario) and Prairie Region (Table 4).

<table>
<thead>
<tr>
<th>Year</th>
<th>East</th>
<th>Central</th>
<th>Prairie</th>
<th>West</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$66,017</td>
<td>$78,846</td>
<td>$88,374</td>
<td>$75,856</td>
</tr>
<tr>
<td>2013</td>
<td>$68,563.5</td>
<td>$82,479</td>
<td>$91,923</td>
<td>$78,851</td>
</tr>
<tr>
<td>2014</td>
<td>$70,244.5</td>
<td>$84,406</td>
<td>$93,419</td>
<td>$80,776</td>
</tr>
</tbody>
</table>

Data source: Statistics Canada (2018) and author’s own calculation.
Conclusion

This research explores the relationship between academic status of librarians and their average salaries across universities and colleges. It covers both the human capital variable (i.e. average years of experience) and job-related variables including librarians’ rights of representation on
the university governance body – Board of Governors, institutional requirements for librarian engagement in scholarship as well as geographic locations of the institution. The findings add to the existing research that academic librarians’ professional experience has a significant positive relationship with their average salaries. Average librarian salaries differ significantly between institutions in Ontario and those in the East and West Regions. Allowing librarians to serve on their Board of Governors is related with higher average librarian salaries. This complements previous studies of librarians’ participation in university governance that primarily examine the relationship between faculty status or unionization and librarians’ salaries. This research will help explain why academic librarians across Canada are paid differently from an institutional lens. Implications on individual librarians are not certain as aggregate data are used in this analysis.

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