

AIUB Journal of Business and Economics

Volume 13, Number 1

ISSN 1683-8742

November 2016 pp. 87-100

**Gender Earning Gap and Higher Educational
Attainment: Trends in Canada**

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Gender Earning Gap and Higher Educational Attainment: Trends in Canada

Abstract

The paper focuses on the relationship between the ongoing gender-earning gap and the increasing rate of higher educational attainment by women in Canada. The increasing rate of educational attainment allows women to enter several male-dominated professions, but in many cases women are not getting the expected returns compared to their male counterparts. Data shows that despite decades of anti-discrimination legislation and equal rights provisions in most peer countries, there is still a significant income gap between men and women in Canada which puts the increasing number of participation of women in tertiary education into a question. In this respect, the paper also includes some basic literature review to find out the reasons behind the gender pay gap. Overall, this paper concludes the necessity of narrowing gender-earning gap in order to achieve fair distribution of wealth.

Key Words: Gender Earning Gap, Higher Educational Attainment, Anti-discrimination Legislation, Labor Market in Canada.

1. Introduction

Pay discrimination was widely accepted historically and thus gender earnings gap persists in every society, even in the twenty-first century even in a developed country like Canada. Many Canadians consider higher education as one of the ways to achieve gender equality. Canadian women have consistently increased their participation in post-secondary education. Since an average university graduate has lifetime earnings that are much higher than an average high school graduate (Kilgour, 2013), higher educational attainment seems like an investment today. The increasing rate of educational attainment allows women to enter professions which were previously dominated by men, but in many cases women do not get the expected rewards compared to their male counterparts. Their participation in various fields including education and social sciences, as well as in engineering and science, has been increasing through the last decade. Unfortunately, women's evolution in the job market is not quite satisfactory. In many cases, women earn less than men do but equal distribution of wage not only increases the GDP (Gross Domestic Product) but also plays a significant role in equal distribution of wealth. This also helps positively in ensuring women empowerment.

There is no doubt that many women discontinue their job or are withdrawn from the workforce to have and rear children and often experience 'motherhood penalty' (Kilgour, 2013). Thus, a usual explanation for the pay gap is, since men in general spend more time in work, they gain more experience and ultimately end up at higher level income than women. However, sex gap in payment with unexplained reasons is also visible in many sectors that are responsible for gender earnings gap. Rising rate of participation in tertiary education sometimes do little in closing this gap. Unfortunately, the inclusion of educational attainment in estimating gender wage gap is relatively an ignored area of research in Canadian studies. This paper tries to deploy the trend of gender earnings gap in Canada and also attempts to focus on the relation between increasing rate of higher educational attainment and the prevailing gender wage gap. To fabricate the paper, I essentially focus on the statistical data and reports and try to get a picture of the current scenario. The paper proceeds as follows. The next section describes the trend of gender earnings gap in Canada followed by the comparative picture of higher educational attainment and gender earning gap. The third section is essentially a literature review regarding the issue of gender wage gap. The last section summarizes discussions and gives recommendations.

2. The Trend of Gender Earnings Gap in Canada

The difference between male and female median full-time earnings as a percentage of male median full-time earnings is known as gender earnings gap (Conference Board of Canada, 2015). Gender equality is assessed by comparing the ratio of male and female income per capita. Any difference between men and women's pay that is not explained by any measurable source of information is known as the outcome of discrimination (Kilgour, 2013). Though in this paper the two terms, 'gender wage gap' and 'gender earnings gap' are used to indicate the same meaning, there is a slightest difference between these two terms. The first term is used to indicate those whose number of working hours is not known while the later indicates those who are employed as full time and full year (Drolet, 1999).

The Charter of Human Rights, adopted by the United Nations in 1948, and amplified by the Canadian Charter was particularly favorable to women. In 1988, Ontario, the province with largest population in Canada, introduced the Pay Equity Act in an effort to combat the devaluation of women's work that results from their segregation into low-paid female jobs and false assumptions about the skill, effort, responsibility and working conditions involved in such work. (Faraday, 2008). The act required employers to evaluate, without bias, jobs done by women and men and to pay equal wages and benefits for comparable worth. This act helps to reduce the pay gap. Indeed, women earn less money than men do and it is always hard for them to get to the higher end of the job scale. Research of the Conference Board of Canada (2015) shows that despite decades of anti-discrimination legislation and equal rights provisions in most peer countries, there is still a significant income gap between men and women in all countries including Canada. Women comprise nearly half of the Canadian labor force but they made up just 5.3 % of Canadian CEOs and held just 15.9% of board seats in 60 companies (Beach, 2015). For every dollar earned by a university-educated male worker in Canada, a university-educated female in the public sector makes 82 cents, and a university-educated woman in the private sector makes 73 cents. Recent census data released by Statistics Canada shows that gender pay differences are wider among older workers in Canada. Women aged 25 to 29 employed on a full-time, full-year basis earned 85 cents for each dollar received by their male counterparts. Among women aged 50 to 54, the ratio amounted to just 72 cents. Younger women seemed to have stopped gaining ground in closing the income gap with men. The ratio in earnings between men and women aged 25 to 29 remained unchanged between 2005 and 2001, after seeing

steady improvements in the preceding decades. In the same year (in 2010), women working full-time for the full year earned an average of \$39,200, or 70.5% in contrast to men, who earned an average of \$55,700. In the mid-1990s, such women earned 72% as much as men. The pay gap is even greater for university-educated women, who earned just 68% as much as men in 2010, down from 75% a decade ago (Beach, 2015).

The gender pay gap in Canada is the fifth greatest in the advanced industrial (OECD) countries and even bigger than in the US. The current gender pay gap in Canada is more than twice the global average and Canadian working women are making about \$8,000 less a year than men doing an equivalent job (Beach, 2015). In the very recent data of Statistics Canada shows that average hourly wage of men and women is \$26.23 and \$22.95 respectively (Statistics Canada, 2014). The global pay gap is about \$4,000 on average between men and women, and the Canadian pay gap is just over \$8,000. A portion of this pay gap can be explained, but 40% of the pay gap cannot be explained by any measurable reason (Beach, 2015). Thus, gender earning gap has become an important issue in Canada which needs to be focused. The next section will highlight the connection between women's higher educational attainment and the ongoing gender earnings gap.

3. Higher Educational Attainment and the Gender Earnings Gap

Research shows that age, occupation, and education affect the gender income gap. The basic reasons for gender wage gap are, women's discontinuation of jobs to meet up their family responsibility which adversely affect their promotion and wages, less unionization amongst female workers and discrimination in hiring, promotion and compensation practices in the workplace (Pay Equity Commission, 2014). Employers who ignore their legal obligations to achieve and maintain pay equity can be found in both the public and private sectors. Many women never received the benefit of the pay equity law.

In Canada, the educational attainment of women has been rising in recent decades and now surpasses that of men though there are gender disparity in the women's participation in graduate level of education and the participation of middle-aged women in higher education. Here, 55% of women have attained a tertiary degree compared to 46% of men (OECD, 2010). If the trend continues, by 2025, there will be almost two female students for every male in tertiary education. Though increased educational

attainment among women has traditionally helped to narrow the gender income gap, it had little impact in the most recent decade for younger women.

In 1980, 17.8 % of Canadian women aged 25 to 29 employed on a full-time, full-year basis held a university degree. Although this proportion almost doubled to 34% in 2000, there has been little change in the earnings ratios for this cohort (Conference Board of Canada, 2015). Statistics Canada points to rising earnings among young men with no university degree in recent years due to jobs in the booming oil and constructions industries—as one possible reason for the stagnation in the gender income gap. Since women usually do not involve these types of jobs, their position is not well-off like their male counterparts.

The earning gap in the 1990s actually increased moderately at the university level, but remained unchanged at the college level (Shannon and Kidd, 2001). The relative stability in the disciplines men and women continued to take in university may have prevented the earnings gap from further declining in the 1990s. It has contributed towards increasing the gap. Public spending cuts were felt by health, education graduates (female-dominated fields like education or social science sectors), and the high-tech boom helped engineering and other technology graduates (male-dominated fields). Alternatively, the rapid rise in the number of women in universities may have extended further down the distribution of unobserved earnings-related characteristics, which may explain why the unexplained component is so prominent. The academic discipline was not available in the Canadian context. However, it is possible that it too was a factor in their findings.

The proportion of women aged 25 to 54 in the labor force that held a university degree rose from 15.7% in 1990 to 29.3% in 2008. The corresponding numbers for men are 17.7% and 25.3%. In 2008, 62% of undergraduate degrees and 54% of graduate degrees were granted to women (Drolet, 2011). According to the Statistics Canada (2010) report, the wage gap narrowed throughout the wage distribution between 1988 and 2008, but it is at the lowest end of the wage distribution where the gap shrank the most (by 11.5%) and the upper end where the gap shrank the least (6.7%). Although women dramatically increased their representation in high-wage occupations like management, the wage gaps within these occupations are clearly larger than average. The wage gap among university graduates remained at 16% during the 1998 to 2008 period. While women's increasing levels of education have helped, a gap remains regardless of education.

Female high school graduates earn 27% less than male graduates. Female university graduates earn 16% less than male graduates. The lowest gap has long been found among women just starting work, but the gap widens as women age. Married women face the widest pay gap at 33%, partly because they bear an unequal share of care responsibilities. The gap continues into retirement as a lifetime of unequal pay and benefits results in retired women receiving a median income just half that of retired men (Drolet, 2011).

Therefore, data indicates that educational attainment cannot give the guarantee of getting higher paying jobs; neither can give the assurance of equal payment though there are also some debates in measuring gender earnings gap. However, these figures show the fact that despite equality to access to education, gender inequality in earning still persists.

4. Researchers' Views Concerning the Gender Earning Gap

Researchers use the human capital model and models of discrimination in explaining the wage structure to measure the gender pay gap (Blau and Kahn, 2007). Thus, the gender pay gap is statistically decomposed into two components: gender difference is measured in characteristics, i.e. application of human capital model and the other is the unexplained component which is potentially due to discrimination. Shannon and Kidd (2001) found that male-female differences in wage determining characteristics such as education, labor market experience, union status, and industry and occupational affiliation help explain the gender wage gap. Thus, education has always been seen as an influential component in estimating the gender wage gap though other factors are also considerable.

The role of education in narrowing the gender wage gap is overruled by the research of Jacobs (1996). He examines the gender inequality in American context and reveals that women fare relatively well in the area of access, less well in terms of the college experience, and are particularly disadvantaged with respect to the future of schooling. He shows that gender differences in earnings persist despite the parity in education attained by women (p.175) and indeed the sex gap in earnings hardly varies by educational level. As a reason for the ongoing gender wage gap he mentions the gender differences in skills acquired in on-the-job training and informal experience.

Frenette and Coulombe (2007) deny the role of education in declining the gender gap in wage. According to them, the reason behind the gender wage gap has largely been associated with changing the family

composition of young men and women, as well as other unexplained factors. Young men increasingly become more likely to remain single than young women, and single people are generally less likely to be employed full-time. Educational factors played little or no role in helping to reduce the gap. Thus, the main reason of large decline in the gender-earning gap was mainly changing family characteristics and some unexplained factors where educational attainment played a minor role in reducing the gender gap.

Blau and Kahn (2008) examine the issue of slowing convergence in the gender wage gap in American context. They too find that the largest factor contributing towards the slowing wage convergence is the "unexplained gap". Specifically, they find evidence that changes in labor force selectivity, changes in gender differences in unmeasured abilities and labor market discrimination, and changes in the relative advantage of supply and demand shifts all played a part in explaining the slowing convergence of the gender wage gap

Jacobs (1996) mentions the choice of field of study as due to the desire of women to maximize their lifetime earnings. He mentions Polachek (1978) who suggests that female-dominated fields lead to jobs with high rewards early in life and a low earnings trajectory. By entering these majors, women position themselves to earn the most during the period when they are most likely to be working. Jacobs opposes this hypothesis and explains that women's fields pay less initially and exhibit slower earnings growth than do male fields, so that earnings maximization cannot be the explanation of such choices. However, in present Canadian context, it seems that Jacob's findings are true since jobs in social sciences or humanities pay less than the jobs available in science and technology, which are usually known as male dominated fields.

Butlin and Oderkirk (1997) provide a proof to show how men are in better position in getting quality job in Canada. Using two different surveys they show that males are 1.6 times more likely to occupy the job of supervisor than women; 1.4 times more likely to be a manager; and 1.3 times more likely to influence recruitment as well as to have more autonomy at work. Moreover, 41 % male supervisors report they influence pay or promotion decisions compared with 36% female supervisors. Gender differences are more striking among managers. While almost 30% of male managers, report that they have reached top level of management in their organizations, this was the case for only 17% of female managers. Even all those disparities, surprisingly women increase their probability of getting a

more powerful job if they complete a master's degree and men decrease their probability with more education: for example, with a master's degree a woman's chances of securing a managerial position increases from 2.43 to 2.723, and those of a man with the same degree decrease from 3.39 to 2.63 which indicates that higher education creates more opportunities for women than for men.

The sex typing of field of study is another factor of gender earning gap and the segregation of fields of study increases as women's representation in higher education increases. Though women represent the majority of students at the undergraduate level, women do not represent the majority of students in every discipline. In 2008, women constituted the minority in the combined disciplines of mathematics, computer and information sciences where they represented 26% of students, and architecture, engineering and related technologies where women represented 20% of students (AUCC, 2011) Conversely, women dominate enrolment in education where they represented 77% undergraduate students; and health, parks, recreation and fitness where they represented 71% of undergraduate students. In fact, the gender distribution across the major fields of study at the undergraduate level has remained virtually unchanged since 2000. Therefore, while men are still outnumbered two-to-one in social science and life science disciplines, they are no longer losing ground. Women represent the majority of students in all fields, except in the combined disciplines of mathematics, computer and information sciences (36%); architecture, engineering and related technologies (30%); and in business, management and public administration (47%) PhD level, the majority of full-time students continue to be men.

A trend in gender wage gap is projected by Shannon and Kidd (2001) in their study, in which they show that changes in educational attainment will narrow the gap, though by 2031, a substantial gap in the range of 63% to 78% will remain (the base year is 1994). They also mention that changes in educational attainment will drive the decline while aging of the workforce with its consequent effects on the male female experience gap will counter further convergence. However, the study projects that the positive impact of higher educational attainment on gender wage gap will only be achieved if wage structure and returns to skill are stable over time. This also points out the shortcoming of the study since there are lots of possibilities that these two factors will change with future situations of macro economy. Thus, increasing the rate of educational attainment cannot

give the guarantee of narrowing the gender wage gap unless the wage structure and returns are unchanged.

Thus, researchers have found mixed results in measuring the income inequality in gender. However, it is not possible to draw a single conclusion by depending upon few surveys. Finnie and Warren (2004) said, "Virtually all previous studies have been based on cross-sectional databases and covered workers of all ages, meaning that while we have a broad understanding of the general structure of the gender earnings gap and how it varies across workers of different ages (and types). We know much less regarding precisely how the gap evolves over the life cycle for given cohorts of workers or how these dynamics have been shifting over time." (p. 5). They do an empirical analysis of the gender earnings gap amongst Canadian Bachelor's level university graduates over the first five years following graduation and compare these dynamics for three separate cohorts of recent graduates and show that hours of work is an important determinant of the earnings gap at each point in time, and specific job characteristics, family status, and province of residence and language spoken, play only smaller and generally more mixed roles in the gender gap amongst these Bachelor's graduates.

5. Summery and Recommendations

The literature mentions several reasons behind the gender income gap in Canada, which show that the relationship between gender income gap and higher education is complicated. From the above analysis, it is clear that a significant cause of gender earning gap may be explained through the gender differences in major. Since women usually choose humanities and social studies related fields their income are usually less than men. Research has been done to better understand why women were underrepresented in the fields of science and engineering. Most of these studies focus on such individual issues as psychological obstacles or lack of social support, or examine specific programs designed to improve women's achievement. However, some studies connect the issues of math and science to broader patterns in education and society. Green (Jacobs, 1996) notes that scarcity of women in scientific fields needs to be discussed in the context of low overall enrolments in science. Again, in choosing occupation, the majority of employed women continue to work in occupation in which women have traditionally been concentrated. In 2004, 67% of all employed women were working in teaching, nursing and related health occupations, clerical or other administrative positions, and sales and service occupations. This compared

with just 30% of employed men (Shannon and Kidd, 2001). This may be an important cause to explain the gender earning difference in Canada. However, on-the job training, informal experience, changing pattern of families might also be considerable factors in gender earning gap.

Whatever the reason is, the main point is that women still receive less money for the same work as men and they still face a 'glass ceiling for promotion'. The pay gap has grown due to the fact that even more women have achieved post-secondary degrees. Women are participating more in the paid labor force at higher levels than ever before, and very few women now drop out of paid work for extended periods, but the pay gap persists and grows. The recent findings of McMaster University show that female faculty members also face discrimination even though they belong to the highest educated category in the country. After a two-year study, now they would be getting a raise in income which could help to close the gender wage gap (The Toronto Star, 2015).

Removing wage discrimination is not an easy task. From the government to employers including feminist groups, activists should play their respective role to achieve equity in payment. In Canada, only Ontario and Quebec have pay equity law for both public and private sectors. Application of pay equity law can work as one of the significant factors to remove the earning gap in gender. At the same time, the government should take proper steps to establish wage equalization in male dominated jobs and as well as female dominated jobs. To make a sound policy for fair wage distribution, it is necessary to have reliable informative research regarding this issue. Unfortunately, the literature is not very rich in Canadian context. Most of the research I discovered depicts a partial description of gender wage gap. Discussion of gender earning gap in relation to increasing participation of women in higher education is almost an ignored area. A good number of research is available in the context of the US and UK. Statistical data based study is necessary to know about the current trend of gender earning gap.

Moreover, this is the time to think about the issue of access to higher education. Widening access cannot give the assurance of equal payment though increasing number of participation in higher education is considered as one of the prominent factors of economic growth. If more women get the opportunity to access higher education it will work to boost the country's economy but may not provide fair distribution wealth. Thus 'interventionist' approach (Unterhalter, 2007) may emphasis on access and

can eliminate gender gap in education (here, higher education) but is not associated with equality at every level of society. If access to education were a primary factor in equalizing the distribution of wealth, one would expect Brazil to have a smaller income inequality gap and Japan to have a much larger one since Brazil has free education but larger inequality while Japan has high tuition fee with less inequality (The Huffington post, 2012). If equal distribution of wealth is the primary concern of a welfare state, it is the responsibility of the decision makers to ensure that both men and women get the same opportunity to maximize their earnings and only then, the purpose of higher education will be fulfilled and women's rights will be ensured.

References

- AUCC. (2015), "Universities/Facts and stats", <http://www.univcan.ca/canadian-universities/facts-and-stats/enrolment-by-university/>, November 9, 2016.
- Beach, M. (2015), "Gender pay gap in Canada more than twice global average, study shows", *The Globe and Mail*, http://www.theglobeandmail.com/news/british-columbia/gender-pay-gap-in-canada-more-than-twice-global-average-study-shows/article24274586/?cmpid=rss1&click=sf_glofefb, November 10, 2016.
- Blau, F. and Kahn, L. (2007), "Gender Differences in Pay", <http://www.nber.org/papers/w7732>, November 13, 2016.
- Butlin, G. and Oderkirk, J. (1997), "Educational attainment—a key to autonomy and authority in the workplace.", *Revue Trimestrielle De L'Éducation*, Volume 4, Number 1, pp. 42–52.
- Conference Board of Canada. (2015), "Gender Income Gap", <http://www.conferenceboard.ca/hcp/details/society/gender-income-gap.aspx>, November 10, 2016.
- Drolet, M. (1999), "The Persistent Gap: New Evidence on the Canadian Gender Wage Gap.", <http://grad.econ.ubc.ca/kefoley/W07360/statcandrolet.pdf>, November 12, 2016.
- Drolet, M. (2011), "Why has the gender wage gap narrowed?", <http://www.statcan.gc.ca/pub/75-001-x/2011001/article/11394-eng.htm>, November 15, 2016.

- Faraday, M. (2008), "Ontario's Gender Pay Gap Cheats Women Workers", *The Toronto Star*, http://www.thestar.com/opinion/2008/09/17/ontarios_gender_pay_gap_cheats_women_workers.html, November 11, 2016.
- Finnie, R. and Wannell, T. (2004), "The Evolution of the Gender Earnings Gap Amongst Canadian University Graduates", *Analytical Studies Branch Research Paper Series*, Catalogue no. 11F0019MIENo.235. Ottawa: Statistics Canada.
- Frenette, M. and Coulombe, S. (2007), "Has Higher Education Among Young Women Substantially Reduced the Gender Gap in Employment and Earnings?", *Ottawa: Statistics Canada Marketing Department*, <http://www.statcan.gc.ca/pub/11f0019m/11f0019m2007301-eng.htm>, November 14, 2016.
- Huffington post Canada. (2012), "Income Inequality", http://www.huffingtonpost.ca/search?q=income+inequality&sort=date:a&date_filter=oldest, November 9, 2016.
- Jacobs, J. (1996), "Gender Inequality and Higher Education.", *Annual Review Sociology*, 22, pp. 153–185.
- Kilgour, J. (2013), "The Pay Gap in Perspective", *Compensation and Benefits Review*, Volume 45, Number 4, pp. 200-209.
- Pay Equity Commission. (2014), *Gender Wage Gap*. Retrieved at <http://www.payequity.gov.on.ca/en/about/pubs/genderwage/wagegap.php>, September 15, 2016.
- Sage Publications. OECD. (2010), *Closing the Gender Gap: Act Now*, <http://www.oecd.org/gender/closingthegap.htm>, November 17, 2016.
- Shannon, M. and Kidd, M. (2001), "Projecting the Trend in the Canadian Gender Wage Gap 2001-2031: Will an Increase in Female Education Acquisition and Commitment Be Enough?", *Canadian Public Policy / Analyse de Politiques*, Volume 27, Number 4, pp. 447-467.
- Statistics Canada. (2014), "Average hourly wages of employees by selected characteristics and occupation, unadjusted data, by province", <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/labr69g-eng.htm>, November 11, 2016.

The Toronto Star. (2015, April 29), “Female Faculty McMaster to get Pay Raise”, <http://www.thestar.com/news/gta/2015/04/29/female-faculty-mcmaster-to-get-pay-raise.html>, November 14, 2016.

Unterhalter, E. (2007), *Gender, Schooling and Global Social Justice*, London: Routledge.