



Odette School of Business

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Brazil Paper Title- Employment and Human Capital

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STEN 4910-3 Study Abroad to Brazil

March 08, 2023

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Abstract

This report provides a comprehensive analysis of employment and human capital in Brazil and further compares this to the state of employment and human capital in Canada. The study begins by exploring the current state of employment in Brazil, including the unemployment rate, the sectors that act as the main sources of employment, wages and equity, and changes in legislation and policies. The report then turns its focus to the issue of human capital, including the quality of education in Brazil, the skills that are in demand, and brain drain from the Brazilian economy

The study concludes with a discussion of the impact of employment and human capital on the economy, including the contribution of the workforce to economic growth, the role of innovation, and the future outlook for the country. General recommendations are also made for the policies and opportunities that can be implemented to improve the current condition. The report provides valuable insights for understanding the current state of employment and human capital in Brazil and the steps being taken to enhance the country's competitiveness in the global marketplace.

Introduction

Brazil is among the world's largest countries in both land area and population. At approximately 8.5 million square kilometers and with over 213 million inhabitants, Brazil is the world's fifth-largest country by area and the seventh most populous (World Bank, 2022). Brazil has a long and storied history that begins well before it was claimed for Portugal in 1500. Since the arrival of the Europeans, Brazil's economy has gone through many phases that required very diverse forms of labour and human capital. Since Brazil became a democracy again in 1985, much has changed, and the employment situation has evolved drastically, even in the past few decades. In the present day, the state of employment and human capital in Brazil is poor, and the problems the country had been facing were only exacerbated by the Covid-19 pandemic.

Unemployment

Perhaps the first metric that comes to mind when considering a nation's employment situation is the unemployment rate. While the rates are not perfect on a country-to-country basis, the unemployment rate in Brazil is recorded by the Brazilian Institute of Geography and Statistics. The IBGE classifies as unemployed those who were not working, were available for work and had taken action to get work in the thirty days preceding the survey (Quintslr, 2008). This definition is very similar to the definition used in Canada and many other countries.

Unemployment in Brazil is high, having been in excess of 10% every year since 2016, peaking at 14.6% in 2021, before improving to a rate of 10.2% in the first half of 2022 (ECLAC *Employment Situation in Latin America and the Caribbean, 2022*). Unemployment in Brazil is much higher among women, as it exceeded 18% in 2021 (ECLAC *Employment Situation in Latin America and the Caribbean, 2022*).

On a global scale, Brazil performs considerably worse than most countries, as the global average unemployment rate in 2021 was just 6.2% (World Bank *Unemployment, total (% of total labor force) (modeled ILO estimate), 2022*). Canada's unemployment rate was much more in line with the global average, measuring in at 6.0% at the end of 2021 (Government of Canada, Statistics Canada *Labour force characteristics by province, monthly, seasonally adjusted, 2023*). Brazil will need to improve upon its unemployment rate if it wishes to become a global leader, and it can look to do so by building upon its largest industries and transitioning to industries with higher growth potential.

Sources of Employment

Brazil is often considered to be an upper tier developing country, and its major sources of employment reflect this. Brazil is an agricultural, mining, and manufacturing powerhouse, and many Brazilians work within these industries, but the majority work in the much more broadly identified "services" industry (O'Neill, 2022). As Brazil continues to develop, employment will continue to gradually shift away from low-wage, labour intensive work centered around the production of goods, to a more service-based economy. The core sectors will continue to be important, and it is particularly notable that 9% of Brazil's population works in the agricultural sector (World Bank *Employment in agriculture (% of total employment) (modeled ILO estimate) – Brazil, 2022*). This is expected, seeing how Brazil is the world's largest producer of sugar cane, soy, coffee, and oranges, and it is among the top producers of numerous other agricultural

products (USDA ERS, 2022). Brazil is also a major mining nation, as it has ground that is rich in various metals, minerals, and even gemstones (Werneck et al., 2013). Combined with manufacturing and industrials, these sectors employ approximately 20% of employed Brazilians (O'Neill). The majority of remaining Brazilians are employed in the services sector, with approximately 70% of the working population (World Bank *Employment in services (% of total employment) (modeled ILO estimate) – Brazil, 2022*). Services are incredibly broad, as it includes retail, banking, healthcare, hospitality, education, and professionals. Over the past 20 years, there has been a massive shift towards the services industry in Brazil, which is indicative of a labour market with increasing skills.

Like Brazil, Canada has a very diverse economy, however; it is most often classified as highly developed, which is seen in its sectors of employment. Using the same splits of labour between agriculture, industrial, and services, it is notable that despite Canada's large amounts of agricultural land in the Western provinces, under 2% of the population works in agriculture, while approximately 20% work in industrials and manufacturing, and almost 80% work in services (O'Neill, 2022). In most cases, the more developed an economy, the more population is employed in services, although manufacturing and agriculture always have an important role in the economy and employment.

Wages and Equity

Wages and equity are critical issues in Brazil, affecting the well-being of workers and the country's economic development. When wages are low, there are many negative social and economic outcomes, including familial instability and poor physical and mental health, which in turn damages employee productivity (Yarrow et al., 2018). On average, Brazilians are paid very low wages, with just R\$2,787 of income per month as of November 2022, which converts to just about \$700 CAD per month. This is incredibly low when compared to the OECD average of \$5,700 CAD per month (OECD, 2022). Fortunately, the cost of living is also incredibly low, as the cost of living in Brazil is estimated \$675 per month, which is 1.45 times less expensive than the world average (LivingCost.org, 2023). Still, this wage is merely just an average, and there are many Brazilians who live well below the poverty line, and many who earn amounts that vastly exceed this. This is exemplified through the Gini Index.

The Gini Index is a measure of income inequality. The Gini coefficient ranges from 0, indicating perfect equality, to 1, perfect inequality (US Census Bureau, 2021). Brazil is the world's 14th most inequal country, with a score of 0.489 (Central Intelligence Agency, 2022). Canada places 122nd in terms of inequality, with a strong score of 0.333, while the average global score is approximately 0.37 (Central Intelligence Agency, 2022). There is further inequality within classes of people, as gender and race disparities continue to show in terms of earnings. Women are being treated particularly unfairly, as even among higher education graduates in Brazil, women earn 32% less than men (Benveniste *Brazil Human Capital Review* 33, 2022). Another inequality that Brazil experiences is racial disparity in income. In 2019, the average income for white workers was 73.4 percent higher than the average income of Afro-Brazilians (Benveniste *Brazil Human Capital Review* 107, 2022). This gap is explained by the fact that Black workers have lower participation rates in occupations where there are usually higher salaries, and even when Afro-descendants have formal work, they are mostly concentrated in low-paying sectors such as agriculture, civil construction, and domestic work (Benveniste *Brazil Human Capital Review* 107, 2022).

While similar inequalities continue to persist in Canada, they are not as severe, as women only earn 11% less. Statistics Canada explains this is mostly due to the more dangerous industries in which men choose to work, for which they are compensated more (Government of Canada, Statistics Canada, 2022). Women in Canada also have a higher rate of part time work than full time work (Government of Canada, Statistics Canada). Canada also has pay gaps between people of different races, as the gap between Black employees and non-visible minority employees was 16.1% (Government of Canada, Statistics Canada, 2022).

Labour Legislation & Policies

Labour law is an important consideration for how the employment market functions. In 2017, one of the biggest labor law reforms since the 1943 Labor Law Code was approved. The labor reform, introduced by Laws 13.427/17 and 13. 467/17, was approved with an impressive speed (Zbucka-Gargas and Da Rocha, 2022). The Labor Reform made sweeping changes and introduced unusual forms of employment such as intermittent work, teleworker, and outsourced worker (Zbucka-Gargas and Da Rocha, 2022). According to employment law in Brazil, a standard working day is eight hours long, while a working week should be no longer 44 hours, with a working month totally 220 hours. Overtime hours are allowed; however, they should be limited to two hours per day and are paid at 1.5 times the employee's normal rate (*Employment law in Brazil: A guide*, 2022). Vacation is accrued at a rate of 30 days per year after 12 months at a company, divided into three periods of 14, 5, and 5 days in a year, or taken in one block (Globalization Partners, 2022). If an employee is sick and provides a medical note, the first 15 days of absence must be paid (Globalization Partners, 2022). Employees are also entitled to take one day of paid leave every 12 months in order to donate blood, but they must provide evidence of the donation (*Employment law in Brazil: A guide*, 2022).

Comparatively, in Canada, most labour standards are provincially regulated. For simplicity, the comparison will be made to the province of Ontario, Canada's most populous province. In Ontario, employers and employees are subject to the Employment Standards Act. The Act requires that the maximum number of hours most employees can be required to work in a week is 48 hours, but hours after 44 must be paid at 1.5 times the typical hourly wage (Government of Ontario, 2022). Employees with less than five years of employment are entitled to two weeks of vacation time after 12 months. Employees with five or more years of employment are entitled to three weeks of vacation time (Government of Ontario, 2022). As for sick days, Ontario requires employees be provided with three sick days in a calendar year (Shukullari, 2023).

Labour policy and environment is also significantly different, as the unionization rate is much different. In Brazil the unionization rate is 12.7% (OECD, 2022), while in Canada, the rate is much higher at 29% (Government of Canada, Statistics Canada, 2022). Unionization is very beneficial to those in manufacturing and industrial situations, which both countries have a lot of people employed in. Unionization also improves the number of Brazilians who work in the formal sector. In 2019, 41.6 percent of all Brazilian workers were in the informal sector. Informality is a quick way to generate income for vulnerable people who struggle to join the formal sector (Benveniste *Brazil Human Capital Review* 98, 2022). The group that suffers most from informality are those with less education.

Education and Training

Education and proper training are vital to the continued success and development of an economy. Covid-19 threw a big wrench into education in Brazil, and many students did not return to school after the pandemic (Benveniste *Brazil Human Capital Review* 25, 2022). When young individuals do not obtain an education, human capital suffers, while human capital gains a boost when education is pursued. The state of Ceará and the municipality of Sobral are well-known examples of success in primary and lower secondary education that improved human capital in the region, while Pernambuco and Cocal dos Alves had similar success with upper secondary education policies (Benveniste *Brazil Human Capital Review* 26, 2022). Quantity and quality of education should be the focus of human capital formation (Benveniste *Brazil Human Capital Review* 31, 2022). On average, Brazilian's study for just 7.9 years after adjusting for quality of education, while Canada is one of the most educated countries with a rate of 11.7 (World Bank, 2022). Despite the importance of education, macroeconomic conditions are a major determinant, as young OECD workers who faced recessions, despite an education upgrading effect from postponing labour market entry, still had shortfalls in their skills two decades later (Adamczyk et al., 2019). Education is the key to developing human capital, but there must be quality and quantity.

Skills in Demand

The impacts of technological change, innovation, outsourcing and business cycles can vary significantly based on workers' skills. The tasks and skill requirements are also related to the elimination and creation of jobs and employment growth (Adamczyk et al., 2019). In Brazil, the major issue is that the greatest degree of human capital is in older populations, but there is a growing gap in skills because of the rapid changes in technology. That being said, Brazil's population pyramid indicates a much younger population than that of Canada and many other top economies, which may position them well for the development of skills in the future (*Population Pyramids of the World*, 2022) All skill groups, ranging from non-cognitive, routine tasks to cognitive non-routine tasks, exhibit a higher average age in 2018 in comparison to 2003 (Adamczyk et al., 2019). In Brazil, demand for professionals has grown substantially, while demand for medium skill tasks is declining, as it is in most developed countries due to robotics and automation (Adamczyk et al., 2019). As Brazil's economy continues to evolve, the work requirements will likely become more polarized between low skill and high skill roles, with fewer roles existing in between. Canada has a different issue with human capital. Canada, like most other developed countries, struggles with meeting demand for STEM and digital careers, while also having a talent shortage across the board in terms of number of people (C.D. Howe Institute, 2022). The supply of talent is simply not meeting the demand, leading to a tight labour market in Canada.

Brain Drain

Brain drain is a huge concern for the Brazilian economy. High skill managers, professionals and entrepreneurs are leaving at a massive rate. In 2021, a staggering 17% of Brazilians who traveled abroad did not return, a record high, as they settled into countries such as Portugal and the USA (Stuenkel, 2022). These professionals were not leaving purely for economic reasons, as many also sought out more safety and education for themselves and their families (Stuenkel, 2022). This brain drain is devastating to Brazil, and something must be done about it. Canada generally retains much of its talent, although there is a notable amount of brain drain to a single country: the USA (Berard-Chagnon, J., & Canon, L., 2022). Although the brain

drain has been slowing in recent years, it will persist as long as the USA continues to offer a strong dollar and higher salaries (Dawson, 2022). So, while Canada gets talent from countries like Brazil, countries also get talent from Canada.

Outlook and Recommendations

It is notable that having a participative and effective workforce is vital to economic growth. When more talented individuals are participating in the economy innovation is greater. Innovation is not always tied to job creation or destruction, but it is necessary to drive the economic growth of a country (Vivarelli, 2015). Brazil still has great potential to improve, but change must come at multiple levels. First, the Brazilian people must want change. They must make change themselves, and push for government policies that attract businesses and drive employment. The government must then use its powers effectively through tax incentives for businesses both large and small, improved funding for education and healthcare, and a better connection globally with nations such as Canada. Brazil can successfully improve its employment and human capital situation, but it will take work from all stakeholders.

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