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Female Labor Force Participation and Tertiary Education: A Case Study of India and Brazil

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Senior Thesis

Presented to the Faculty of the Department of International Studies
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Introduction:

Women constitute a little more than half of the world's population, but their contribution to measured economic activity and economic growth is below its potential. According to the World Bank (2016) women now represent around 40 percent of the global labor force.¹ However, in most countries, women's labor force participation is significantly less than that of men. The International Monetary Fund (2013) explains that the average gender participation gap – which is the difference between male and female labor force participation rates – has been falling since 1990, but labor force participation remains divided along gender lines.² It seems that this decline in the gender participation gap is due to a worldwide decline in male labor force participation rates rather than a significant increase in female labor force participation rate.³

Female labor force participation (FLFP) is important for the socio-economic development of a nation because it promotes efficiency and equity. Generally, high female participation in the labor market implies: advancement in the economic and social standings and empowerment of women. These things promote equality and utilize all available human capital, which create a greater capacity for economic growth and poverty reduction.⁴ Understanding women's decision to partake in the labor market, as well as the factors that encourage to either participate in or

¹ World Bank, World Development Indicators, 2016; Labor Force, Female (% of Total Labor Force), ILO.

² “Gender and IMF.” *Gender and IMF, Gender in the workforce*, www.imf.org/external/themes/gender.

³ World Bank, World Development Indicators, 2016; Labor Force Participation Rate, Male (% of Male Population), ILO.

⁴ Mujahid, N. (2014). Determinants of Female Labor Force Participation: A Micro Analysis of Pakistan. *International Journal of Economics and Empirical Research*, 2 (5) and Fatima, A., & Sultana, H. Tracing out the U-shape relationship between female labor force participation rate and economic development for Pakistan. *International Journal of Social Economics*, 36 (1/2), 182-189.

refrain from the workforce, is imperative for policy makers to create legislation to help an economy develop and remain successful. The understanding of these factors and their effect on women can determine prospective growth and development of countries, helping us encourage female participation or address problems that deter females from participating in the labor market. These findings are vital because recently female labor force participation has become an essential component in determining the performance of economic development in both developed and developing countries.

While both are considered democracies and emerging markets, the future economic fortunes of India and Brazil seem to be on divergent paths, impacting the number of women participating in the economy. While the World Bank claims that there is significant evidence that the rise of female labor participation rate increases in accordance with income, India's female labor participation rate continues to decline as Brazil's FLPR increases. This paper seeks to understand how the disparity of FLPR can be explained by using India and Brazil as case studies using their similarities as emerging markets and democracies in hopes to understand their difference in female labor participation rates.

Both India and Brazil have strong early education programs, but this paper will argue how India lacks support for tertiary education funding. Brazil, on the other hand, funds a significant portion, comparable to their primary and secondary funding, to tertiary education, making a distinct difference from India and may explain Brazil's raising female labor participation rate. Tertiary education, also known as the third stage/post-secondary education, is the education level following the completion of a high school education (secondary education). There is a worldwide push for young girl's primary and middle levels of educational attainment, as seen through the United Nation's Millennium and Sustainable Developmental Goals, but a

tertiary education furthers entry into public sector jobs or salaried private sector employment positions.

India has one of the lowest female labor force participation (FLPR) rates - typically measured as the share of women that are employed or seeking work as a part of the working-age female population - among emerging markets and developing countries.⁵ Between 1990 and 2015, India's Gross Domestic Product (GDP) rose from US \$275 to US \$1,572, but the FLPR fell from 35 percent to 27 percent. In contrast, Brazil's female labor participation rate has increased from 45 percent in 1990 to 56 percent in 2016.⁶ Thus, this thesis questions the reason for why India is not following the same trajectory as most other countries at a similar level of growth where FLPR rises with GDP; and what explains diversity in the female labor participation rate in emerging economies. Female labor participation is an important driver and outcome of growth and development, especially given the international context and awareness of women's education as addressed in both the Millennium and Sustainable Development Goals. While women's labor force participation tends to increase with economic development, the relationship is not uncomplicated. This paper seeks to understand how the diversity of FLPR can be explained by using India and Brazil as case studies.

Literature Review:

The neoclassical theory of labor supply is the starting point for analyzing labor force participation of individuals and how they allocate time to other activities. According to this human capital theory, Mincer argues that when labor productivity resides on specific human

⁵ World Bank, World Development Indicators, 2016; Key Indicators of the Labour Market (KILM), ILO.

⁶ World Bank, World Development Indicators, 2016; Labor Force Participation Rate, ILO.

capital, workers who disrupt their careers are less meaningful to their employers.⁷ Female workers tend to “disrupt” their work primarily for maternity leave, their children, and other familial obligations. Therefore, employers who use this human capital theory will avoid hiring women, which stunts female employment rates or entices employers to pay females less, generating a gender wage gap.⁸ In addition, pioneers of the female labor force participation have also highlighted that women’s labor supply depends upon economic and demographic characteristics such as fertility or the number of children⁹ and their schooling, women’s educational attainment, economic development, and gendered wage differentials¹⁰.

Previous work has identified demographic characteristics as the key drivers of female labor force participation. Studies have highlighted the role of education, as previously mentioned, and fertility to significantly affect women’s economic participation. With respect to the human capital theory, feminists explain that fertility trends, which are dictated by social norms and customs, have examined the effect of childbirth on married women’s labor force participation. A causal relationship between fertility and FLFP estimates that having one more child decreases female labor force participation. A study using population census data of married Chinese women, found that one more child decreased female labor force participation by 6.7 percent and 8.5 percent in 1990 and 2000, respectively.¹¹ Regarding the human capital theory, as investment in human capital increases and more women join the workforce, fertility behavior

⁷ Mincer 1962, Mincer & Polachek 1974, Polachek 1975.

⁸ Ibid.

⁹ Hill, M.A. (1983). Female Labour Force Participation in Developing and Developed Countries: Consideration of the Informal Sector. *The Review of Economics and Statistics*, 65(3), 459– 468.

¹⁰ Bhalla, Surjit S. and Ravinder Kaur, “Labour Force Participation of Women in India: Some facts, Some Queries,” LSE Asia Research Centre Working Paper Series #40, 2011.

¹¹ HE, X. & ZHU, R. 2013. Fertility and Female Labor Force Participation: Causal Evidence from Urban China.

changes where women are likely to have fewer children.¹² The human capital theory explains that the female labor force participation is influenced by women's reproductive opportunities are also reflected by their education, their non-human capital assets, the presence of children, and their social environment. This extends from the high opportunity cost of having many children and not participating after having acquired higher education. The "insurance effect" explains how the presence of low child survival rates, parents may have more births than they otherwise might have had. Improvements in child survival will most likely have a positive effect on FLFP because with fewer children women will be more available for work outside the home. Similarly, older children are also expected to encourage female labor participation rate as the children are more likely to have more help in domestic activities, and women can afford to enter the workforce. Additionally, fewer children also encourage female labor participation rate.¹³ The effects of a women's social environment as represented by a woman's residence, ethnicity, and religion on fertility and labor force participation are inconclusive. However, urban residence is best associated with factors that help reduce fertility and increase a women's participation rate.

As per most of conducted research, scholarly findings suggest that education has a positive effect on FLFP. The rationale explains that the more educated and skilled individuals are, the greater their income potential because education increases the opportunities for paid employment. Shimada and Higuchi report that improvements in female education and wages led to a substantial increase in paid female employment in Japan.¹⁴ Thus, women's education is

¹² Singh, R.D., 1994. "Fertility-Mortality Variation Across LDCs: Women's Education, Labour Force Participation and Contraceptive Use." *KYLOS*. 47:2 pp 209 - 229.

¹³ Montgomery, M., A. Kouame and R. Oliver. 1995." The tradeoff between number of children and Child schooling: Evidence form Cote d'Ivoire and Ghana". LSMS Working Paper Number 112, The World Bank, Washington, D.C.

¹⁴ Shimada H. and Higuchi Y. (1985), "An Analysis of Trends in Female Labor-Force Participation in Japan", *Journal of Labor Economics* Vol. 3(1), pp. S355-S374.

generally expected to have a positive impact on labor market participation and at the same time reduce the number of children born to the woman. The level of education shows a significant impact on women's labor force participation. Much of the existing research focuses primarily on primary and middle education levels, with little research given to women's access to higher levels of education.

Education is an important factor contributing to national income; thereby, the level of educational attainment affects FLPR. Increases in education prompts more women to enter the labor force, which, in turn, improves labor market opportunities and drives more women to enroll in schooling.¹⁵ However, there is a clear relationship between gender gaps in education and development where there is a pronounced male bias in educational attainment at low levels of economic development. Female education is often viewed as a "luxury" for many families in developing countries. In low income countries, female enrollment is lower than male enrollment, but in richer countries there is almost an equal amount of male and female enrollment with female enrollment sometimes exceeding male enrollment. Yet, as economies start to grow, young girl's education begins to increase at a faster rate than boys', "closing the gender gap."¹⁶ There are a few reasons for this rapid increase in female education over male education: if female labor force participation is increasing and education provides benefits within the labor market, "forward-looking" families will be more likely to invest in girl's education over time. Reductions in fertility, better control over timing of fertility, and increase in access to birth

¹⁵ Heath, Rachel and Seema Jayachandran. "The Causes and Consequences of Increased Female Education and Labor Force Participation in Developing Countries." (n.d.): 1-27. Northwestern University – Institute for Policy Research, Oct. 2016. Web. 16 July 2017. Pp. 2.

¹⁶ Ibid, 5.

control increases women's time in the labor market. The increase in female labor force participation rate due to education can also be explained through CCTs, or conditional cash transfers, which are used to increase young girls' education. CCT programs aim to reduce poverty by making certain actions conditional on the receivers' actions. In the state of Bihar, India gives bicycles to young girls who stayed schooling as a policy which "provides an incentive to remain in school and makes traveling to school faster and safer" for these girls.¹⁷ Thus, increase in female education affects labor supply and allows women the opportunity to successfully engage in economic opportunities and ultimately push for promoting female education as female education is advantageous for a family's income. Lower levels of education should continue to be an area of focus, but quality of tertiary/post-second schooling and vocational training should be assessed, given the low female participation rates.

Aside from the strong connection between education and female labor force participation, many economists believe there is a strong connection between female labor force participation and economic development. These economists explain how increased FLFP leads to significantly increased economic development. Scholars highlight economic development and modernization as driving forces in increasing FLFP in western, industrialized economies; however, female participation in the labor market is not as monotonic as countries develop. Instead, female labor force participation should be modeled after a U-shaped function with women first leaving the formal labor force and then returning.

¹⁷ Heath and Jayachandran, 4.

The Feminization “U-Theory,” also known as the “U-shaped model of employment and development,”¹⁸ explains that the female labor participation rate and economic development create a U-shaped relationship. The reason the U-shaped relationship exists because at early stages of development, women will do “unpaid work on family farms and in family businesses.” Thus, the initial decline in the participation rate is due to the movement of production from the household, family firm, and small business to the wider market. As development progresses and more income is available, “economic activity migrates to factories and firms” and women tend to leave the labor force.¹⁹ Thus, the U-shape hypothesis concludes that there is some sort of tradeoff between gender equality and economic growth during a country’s development. The main hypothesis within this context of the literature is the idea that there is U-shaped relationship between female labor force participation and development. Goldin (1995) analyzed about a hundred countries, working with women between the ages of 45 and 59, to understand the relationship between FLPR and development. Goldin hypothesizes that FLPR is U-shaped during the developmental process because women have a high participation rate in the labor force during the agricultural stage of an economy with women working on unpaid household activities or family farms. As the country develops, the production becomes more efficient because of mechanization, which leads to an increase in family income. This increase in family income may be attributed to men working in blue-collared jobs, so the demand for low-skilled female labor

¹⁸ Goldin, C. 1994. “The U-shaped female labor function in economic development and economic history”, in National Bureau of Economic Research Working Paper Series 4707.

¹⁹ Heath and Jayachandran, 5.

force fall.²⁰ This U-shape has gradually increased over the years, even in developing countries, while female labor participation continues to grow, conditional on a country's income.

In addition to the relationship between female participation in labor force and economic growth, scholars argue that gender gaps in entrepreneurship and labor force participation significantly reduce per capita income.²¹ Higher female labor force participation can directly yield growth and gains by reducing the impact of a decline in the labor force on potential growth. A more modern understanding of gendered economic development and income is the idea that women have more opportunities to create and make work, they can “earn and control income” which can contribute “to broader economic development in developing economies.”²² It's been studied that women are more likely than their spouse to devote resources in the education of their children. The International Labor Organization (ILO) claims women's work whether paid or unpaid is the “single most important poverty-reducing factor in developing economies.”²³ Higher female labor force participation (FLFP), greater economic security, and higher income could create a “virtuous cycle” where a greater number of young girls could be enrolled in schooling because these “educated women become female models.”²⁴

Thus far, barriers to female participation in the workplace have primarily been analyzed through an economic lens. It is crucial to understand that race, ethnicity, class, and sexuality are also dictating factors in labor force participation. Because this paper will focus on two specific

²⁰ Goldin, C. (1995) "The U-shaped Female Labor Force Function in Economic Development and Economic History", National Bureau of Economic Research, New York, NY, Working Paper Series (Working Paper No. 4707)

²¹ Cuberes, D., and M. Teignier. 2012. “Gender Gaps in the Labor Market and Aggregate Productivity.” Sheffield Economic Research Paper SERP 2012017.

²² Elborgh-Woytek, Katrin, et al. “Women, Work and the Economy: Macroeconomic Gains from Gender Equity.” *IMF Staff Discussion Notes*, 2013. EBSCOhost, pp. 5.

²³ Ibid, 5.

²⁴ Ibid, 5.

countries with diverse and rich cultures, it is imperative to recognize that for each individual woman, the factors affecting and motivating her economic decisions are additionally bound in her race, ethnicity, class, and sexuality. Folbre calls these factors “structures of constraint,” arguing that women can identify with these different constraints that place them in various positions in a hierarchal society.²⁵ As women are members of a community that is marginalized in many societies, it is necessary to consider these factors. Scholars have recently begun attempting to understand/analyze the impact of empowerment rhetoric on the female labor force participation rate. The current rhetoric of women’s “empowerment” in developing countries demands more participation and decision-making in political, economic, and social spheres. Isseries argue that this idea of empowerment rhetoric work to advance their gendered program initiatives, but the rhetoric used is disconnected from reality. Often the rhetoric takes a neoliberal approach but fails to recognize the everyday implications of that rhetoric,²⁶ and feminist scholars believe this use of the term “empowerment” can be problematic. Empowerment can be defined as giving women power to decide for their own lives, instilling in them the ability to find their rightful place in society. The United Nations “Guidelines on Women’s Empowerment” uses the following five components to define women’s empowerment:

- I. “A sense of self-worth”
- II. “[The] right to have and to determine choices”
- III. “Access to opportunities and resources”

²⁵ Folbre, N. 1994. *Who pays for the kids?: Gender and the structures of constraint* (London, UK, Routledge), pp. 51-90.

²⁶ Isserles, Robin G. “Microcredit: The Rhetoric of Empowerment, the Reality of ‘Development As Usual.’” *Women's Studies Quarterly*, vol. 31, no. 3/4, 2003, pp. 38–57. *JSTOR*

- IV. “[The] right to have the power to control their own lives, both within and outside the home”
- V. “[The] ability to influence the direction of social change to create a more just social and economic order, nationally and internationally.”²⁷

While defining and recognizing the importance of women and their ability to feel empowered is necessary and important to see change within the economy to increase the FLPR, it’s imperative to note that empowerment rhetoric fails to “address the diversity of social structures that govern women’s lives,” including social stigmas or social biases.²⁸

Methodology:

For the reader to follow this paper, they must first be equipped with working definitions of female labor participation rate (FLPR), gross domestic product (GDP), and what it means to be an emerging economic and democratic country. The reason for using both Brazil and India as countries for this case study is to understand how Brazil’s female labor participation rate has continued to increase over time while India’s has declined. I looked for a country that was like India; both countries are democratic and emerging economies. Since this paper will compare the disparity in FLPR between India and Brazil, a brief history of FLPR and gender relations will be given of both countries and a succinct overview of existing literature pertaining to the fall of India’s FLPR and the rise of Brazil’s FLPR will be addressed. The reason for using both Brazil and India as countries for this case study is to understand how Brazil’s female labor participation

²⁷ “Guidelines on Women’s Empowerment.” United Nations Population Fund. Accessed 5 September 2017.

²⁸ Upadhyay, Reecha. “Women’s Empowerment in India: An Analytical Overview.” (n.d.): 1-14. The Asia Foundation. Web. 15 July 2017.

rate has continued to increase over time while India's has declined. I looked for a country that was like India; both countries are democratic and emerging economies.

Indian Context:

As much as women's participation is influenced by economic and structural factors it is also influenced by social norms that govern gender roles. This section will analyze the factors that explain FLPRs decline within the Indian context. Most of studies conducted reference the National Sample Survey, which focus on the areas of income, education, employment opportunities, and cultural factors as propelling components of women's labor market participation. These surveys reveal that the causal mechanisms that affect women's economic activity are not completely understood, and there are no simple explanations that are applicable across all contexts. For example, education will depend on both economic opportunities available, as the service sector tends to require higher skills that many women do not have, and cultural norms that govern women's employment status. In a traditionally patriarchal society where the man serves the role as providing for the family, women's absence in the labor market reflects not only their household preferences but also has class connotations. A woman participating in the workforce insinuates economic hardships for their household; thus, as the family's income increases, women tend to leave the workplace.²⁹ Within India, there is a unique interplay of outside forces, like the market, and inside forces, like household and familial context, that complicate women's economic activity and participation.

²⁹ Rangarajan, C, and Padma Iyer Kaul. 2011. "Where Is the Missing Labour Force?" *Economic and Political Weekly* XLVI NO 39: 68–72.

Brazilian Context:

Much like India, Brazil's women's labor force participation is contingent on both cultural and economic conditions. Machismo-culture is one of the primary explanations to understanding how social norms impact gender inequality within Brazil's labor market as this culture perpetuates the patriarchy and chauvinism. The term "machismo" stems from the male term "macho" and "masculinity" and is present primarily in Latin American culture. Machismo explains the idea that men are viewed as strong and powerful and must prove their manliness through the submissiveness of women.³⁰ Masculinity in Brazil is heterosexual with a clear dichotomy between men and women where men are rigid and must embody the traditional conception of masculinity. In the existing macho-culture, women have a harder time "breaking into" occupations that are commonly associated with male attributes. Many times, women are perceived as too emotional or as a poor fit in employment dominated by men, resulting in smaller labor force participation for Brazilian women. While macho-culture significantly disadvantages women where women perceive themselves as submissive, men also experience significant pressure from their familial surroundings and must uphold their pride.³¹

Definitions:

Female Labor Participation Rate working definition:

³⁰ Oliveira, J. B. L. (2000). Deconstructing 'machismo': victims of 'machismo ideology' dominating in Brazil. Psychology Department University of Bologna

³¹ Peters, K., Ryan, M. K. & Haslam, S. A. (2015). Marines, medics, and machismo: Lack of fit with masculine occupational stereotypes discourages men's participation. *British Journal of Psychology*, 106: 635–655. doi: 10.1111/bjop.12106

The participation rate measures the number of active members within an economy's workforce as a percentage of the working-age population. The analysis of the labor force by gender in this specific paper gives a profile of the distribution of the female labor force within a country. The labor force is the sum of the number of persons employed and the number of persons unemployed. And the labor force participation rate is calculated as the labor force divided by the total working-age population. Thus, the measurement of the labor force participation rate requires the measurement of both employment and unemployment. Employment includes all individuals actively engaging in the labor market, either by working or looking for work. The key word in employment is "actively engaging;" those who become disengaged in seeking employment are not counted here. Thus, the labor force indicators only acknowledge those individuals seeking work. Unemployment refers to those who are jobless, looking for a job, and available who are of working-age. The working age is the population of individuals above the legal working-age; within much of scholarly work, the working-age population is often defined as persons 15 and older.

The labor force participation rate only includes formal workers. Therefore, it is important to recognize the implications of the formal and informal sector of the labor market. The formal sector of the economy encompasses all jobs with dictated hours and regular wages, and the means of employment are recognized as income sources on which income taxes must be paid. Economic activity in the formal sector occurs within the confines of state regulation and formal employment is employment originating from a business or firm that is registered with the state. The informal sector is often considered the opposite of the formal sector. The informal sector pertains to economic activity that occurs outside the purview of state regulation and the source of employment originates from a business or firm that is not registered with the state nor taxed by

the government. The informal sector is often viewed as a substitute for formal employment. Kingdon and Knight argue that the informal sector is incapable of creating capital accumulation or economic growth, making the informal economy a liability for the overarching economy.³²

This female participation rate, thus, refers to the number of female individuals who are either employed or actively looking for formal work who are of the working age within their country. The FLPR plays a crucial role as it determines the size of a country's resources and represents the amount of labor resources available to produce goods and resources. This information is obtained through the census and can be used to create employment policies, to calculate the needs and expected working lives of both male and female populations. Within this study, it will be constructive to breakdown labor force participation rates by gender.

Gross Domestic Product working definition:

Gross Domestic Product (GDP) is one of the primary indicators used to measure the size of a country's economy. GDP represents the monetary value of all goods and services produced within a country's borders over a specific period. The components of GDP include the total of the following: personal consumption, investment, government spending, net exports (exports minus imports). GDP includes all private and public consumption, paid-in construction costs, and the foreign balance of trade where exports are added, imports subtracted. GDP represents economic production and growth. A country's economic growth and production have a significant impact on those participating within the economy because when an economy is

³² Kingdon, Geeta and Knight, John. 2007. Unemployment in South Africa, 1995-2003: Causes, Problems and Policies. *Journal of African Economics*. 16(5): 813-848.

viewed as healthy, people within the economy will typically see low unemployment and wage increases to meet the growing economy. The measurement of GDP serves as an ideal tool to compare economies of other countries or see how an economy changes over time.

While GDP provides an overall indication of an economy's growth and size, many scholars are hesitant to use GDP as the sole indication of a country's growth because GDP does not account for negative externalities. The Organization for Economic Cooperation and Development (OECD) critiques GDP as a "satisfactory measure of growth" because it "measures income, but not equality, it measures growth, but not destruction, and it ignores values like social cohesion and the environment."³³ Despite GDP's limitations, GDP is a helpful statistic because it provides the best overall picture of the state of a country's economy. Addressing these limitations of GDP are important, but for the purpose of this study, I will only be using GDP as a measure to compare the success of Brazil and India's economy, so I am not concerned with how GDP does not capture wellbeing.

*What it means to be an emerging economy*³⁴:

An emerging market economy describes rapidly growing and volatile economies of certain Asian and Latin American countries. The emerging countries promise huge potential for growth but also pose significant political, monetary, and social risks. A Goldman Sachs report predicted that Brazil, Russia, India, and China, often called the "BRIC"s³⁵, would have greater economies together than the G-6 countries (United States, Japan, United Kingdom, Germany,

³³ "Is GDP a Satisfactory Measure of Growth?" *OECD Observer*, 2004-2005.

³⁴ For the purpose of this study, I will use the terms "emerging" economy and "developing" economy interchangeably.

³⁵ Wilson, Dominic, and Roopa Purushothaman. *Dreaming with BRICs: The Path to 2050*. Goldman Sachs, 1 Oct. 2003.

France, and Italy). The opening of these large economies to global capital and technology have increased GDP growth rates exponentially, outpacing those more developed economies. These significant changes in growth by the BRICs have lifted millions out of poverty and created a new middle class within their respective countries. Some scholars believe that this idea of emerging economies is merely an illusion, and, instead, these economies fall into the “catch-up” effect. The “catch-up” effect claims that these economies are not any different from other economies, but they are simply beginning at a lower economic base and are suddenly rapidly catching up. Of the BRIC countries, this paper will examine the multi-trillion dollar economies of both Brazil and India.

The term “emerging” or “developing” countries have their own pitfalls. Using these terms, we are imposing Western labels in classifying and labeling Brazil and India as “emerging” or “developing.” As Arturo Escobar articulately states,

the development discourse inevitably contained a geopolitical imagination that has shaped the meaning of development...it is implicit in expressions such as First and Third World, North and South, center and periphery. The social production of space implicit in these terms is bound with the production of differences, subjectivities, and social orders.³⁶

Thus, post-development scholars, like Escobar, would argue that by using these implicit terms, we are creating unequal power dynamics and perpetuating poverty. While I will not be comparing Brazil and India to a Western country, it is still important to recognize how discourse can implicate countries as making the non-Western countries become Western. Language is imperative because we do not “realize that language first of all is a classification and arrangement of the stream of sensory experience which results in a certain world order;” and I

³⁶ Escobar, Arturo. *Encountering Development: The Making and Unmaking of the Third World*. STU - Student edition ed., PRINCETON; OXFORD, Princeton University Press, 1995, pp. 9. *JSTOR*, www.jstor.org/stable/j.ctt7rtgw.

want to emphasize that the findings in this paper are not less than because they pertain to emerging economies.³⁷ Additionally, the language pertaining to emerging countries stemmed from a Western point of view, which may have begun from colonial pastime, may also impact historical female participation in the workforce. This colonial history impacts our understanding of discrepancies within the female labor force participation rate because before the 1900s, it was rare for occupational census data to have been collected about women.³⁸ In “The Entrepreneurial Spirit in Colonial America,” Edwin Perkins explains, “colonial women even in the most favorable circumstances remained strictly on the periphery of the entrepreneurial class.”³⁹ Women were essentially economically disregarded during the colonial period as they were pushed into domestic and reproductive labor. Policing the nuclear household and gendered boundaries between public and private was central to colonial role, explaining low participation in the labor force.

What it means to be a democratic country:

Democratic countries are often defined in opposition to authoritarian or totalitarian regimes. A democracy is a form of government where a constitution guarantees basic personal and political rights, fair and free elections, and independent courts of law. To be labeled a modern democracy, a country must guarantee their citizens human rights; freedom of opinion,

³⁷ Whorf, B. L. 1956. The punctual and segmentative aspects of verbs in Hopi. In: Language, Thought and Reality: Selected Writings of Benjamin Lee Whorf. MIT Press, Cambridge, MA.

³⁸ Goldin, Claudia. Understanding the Gender Gap: An Economic History of American Women. New York: Oxford University Press, 1990. Pp, 46.

³⁹ Perkins, Edwin J. "The Entrepreneurial Spirit in Colonial America: The Foundations of Modern Business History." Business History Review 63, no. 1 (Spring 1989): 160-186. EconLit with Full Text, EBSCOhost (accessed October 11, 2017).

speech, press, religion; separation of powers between the institutions of the state; equal opportunity to vote (one person, one vote); and good governance. Schmitter and Karl define a modern democracy as “a system of governance in which rulers are held accountable for their actions in the public realm by citizens, acting indirectly through the competition and coordination of their elected representatives.”⁴⁰ While both India and Brazil are now democratic republics, both countries have a history of colonization by European powers. They both were colonized and experienced a period of transition as an independent nation (India) or independent empire (Brazil); eventually, both countries established democratization.

Historical and Economic Context

Indian History:

The Indian Nationalist Party forged their independence from the British East India Company on August 15, 1957, becoming an independent nation within the British Commonwealth. This date signified the partition of India with the annunciation of the “Radcliffe Line,” which divided India and Pakistan. It was not until 1950, with Jawaharlal Nehru as the Prime Minister of the Indian National Congress and the institution of Dr. B.R. Ambedkar’s constitution, that India became a secular and democratic state. The influence of the British’s colonization is apparent in India’s style of government – a “Westminster” style of government within two houses and a prime minister, who serves as the head of the government.

Economic Trends of India:

⁴⁰ Schmitter, Philippe C. and Karl, Terry J., “What Democracy Is...and Is Not” *Journal of Democracy*, Vol. 2, No. 3. (1991), pp. 4.

India has one of the largest markets due to their population of 1.3 billion, but India also has one of the lowest female labor force participation rates among emerging markets and developing countries. Between 1990 and 2016, India's Gross Domestic Product (GDP) rose from US \$316.697 billion to US \$2.264 trillion, but the FLPR fell from 35 percent to 27 percent.⁴¹ The driver of India's economic growth is said to be its "greater exposure to international markets" where about 49 percent of India's GDP comes from foreign trade, compared to 25 percent for Brazil.⁴²

Brazilian History:

Much like India, Brazil was invaded by Europeans at the beginning of the 16th century with the intent to exploit Brazil of their natural resources like sugarcane, coffee, gold and diamonds. From the 16th to 19th century, Brazil was a European colony and part of the Portuguese Empire until 1822 when Brazil declared its independence from Portugal and became the Empire of Brazil. Unlike India, Brazil did not immediately become a democratic republic; Brazil was categorized by *de facto* presidents and military regimes. Brazil had a brief stint with a presidential, constitutional democracy from 1890 to 1930, a period of military domination due to a 1964 Brazilian coup d'état, and then ultimately Brazil re-democratized in 1985 with the election of Tancredo Neves.

It is imperative to acknowledge India and Brazil's colonial past because their present and futures are linked to their past exploitation. Understanding their success as emerging economies

⁴¹ World Bank, World Development Indicators, 2016; Key Indicators of the Labour Market (KILM), ILO.

⁴² Ross, Sean. "Economics Report: Compare and Contrast India vs. Brazil (PBR)." *Investopedia*, 4 May 2016.

would not be without also remembering lasting poverty and devastation inflicted on these country's indigenous populations.

Economic Trends of Brazil:

Measured purely by GDP, India's economic market is much larger which can be attributed to their larger population size. Using the same time frame from 1990 to 2016, Brazil's GDP rose from US \$461.952 billion to US \$1.796 trillion. Thus, it is apparent that Brazil's GDP economy is smaller than India's; however, based on Brazil's GDP per capita Brazil is much richer. GDP per capita in Brazil was roughly US \$12,200 in 2015⁴³ compared to India's GDP per capita of US \$1,572, nearly eight times less than Brazil's GDP per capita.⁴⁴

There is a clear relationship between gender gaps in education and development where there is a pronounced male bias in educational attainment at low levels of economic development. Female education is often viewed as a "luxury" for many families in developing countries. In low income countries, female enrollment is lower than male enrollment, but in richer countries there is almost an equal amount of male and female enrollment with female enrollment sometimes exceeding male enrollment. Yet, as economies start to grow, young girl's education begins to increase at a faster rate than boys', "closing the gender gap."⁴⁵ There are a few reasons for this rapid increase in female education over male education: if female labor force participation is increasing and education provides benefits within the labor market, "forward-looking" families will be more likely to invest in girl's education over time. Reductions in

⁴³ Ross.

⁴⁴ World Bank, World Development Indicators, 2016; Key Indicators of the Labour Market (KILM), ILO.

⁴⁵ Heath and Jayachandran, 5.

fertility, better control over timing of fertility, and increase in access to birth control increases women's time in the labor market. The increase in female labor force participation rate due to education can also be explained through CCTs, or conditional cash transfers, which are used to increase young girls' education. CCT programs aim to reduce poverty by making certain actions conditional on the receivers' actions. In the state of Bihar, India gives bicycles to young girls who stayed schooling as a policy which "provides an incentive to remain in school and makes traveling to school faster and safer" for these girls.⁴⁶ Thus, increase in female education affects labor supply and allows women the opportunity to successfully engage in economic opportunities and ultimately push for promoting female education as female education is advantageous for a family's income. Lower levels of education should continue to be an area of focus, but quality of tertiary/post-second schooling and vocational training should be assessed, given the low female participation rates.

Evidence/Argument:

In this section, I will present my evidence and analysis on the thesis. My goal is to understand the female labor force participation rate disparity between India and Brazil and how women are important drivers for economic growth. Rising female employment could have a direct impact on country's GDP. The following analysis will emphasize how Brazil's strong foundational focus on primary and secondary education have impacted tertiary education as primary and secondary education are mainstream mechanisms for pursuing tertiary education. Tertiary education's funding allows women the opportunity to be economic agents, creating stable prosperity, healthy societies, and a bright future. When women are engaged and active in

⁴⁶ Heath and Jayachandran, 4.

the economy, as seen through the literature review, they contribute to not only their families' income but to the country's national income; are less likely to have many children, which reduces that child's likelihood of death; and may encourage and promote education to their children as the women serve as educated role models.

Brazil is now the world's sixth largest economy, lifting millions out of poverty and bringing almost 200 million into the emerging middle class. Over the past two decades, women have benefitted from Brazil's integration into the global market.⁴⁷ Trade liberalization and integration into the world market between 1987 and 1994 may be one potential explanation for Brazil's aggregate female labor force participation to increase from 46 percent to 53 percent within this seven-year time-period.⁴⁸ Since 1994, Brazil's FLFP has continued to increase and has trended steadily at 56 percent from 2011 until 2016.⁴⁹ Additionally, women's participation rate in the national labor force is at its highest point, a high of more than 60 percent.⁵⁰ Many

⁴⁷ However, women continue to face major disadvantages regarding employment conditions, negotiations, and promotions. Women continue to “earn 30 percent less than men for the same work, and they occupy a mere 56 of the 594 seats in the Brazilian congress.” (Osava, Mario. “RIGHTS: Women More Educated, Not More Equal.” *RIGHTS: Women More Educated, Not More Equal / Inter Press Service*, Inter Press Service, www.ipsnews.net/2010/03/rights-women-more-educated-not-more-equal/.) This would equate to about 9.5 percent of Brazilian women are involved within the central public government. Additionally, for future research, it is important to nuance this category of women in relation to Brazil's racial hierarchies, which women are being integrated into the economy, and which women are facing hyper-exploitation and/or unemployment.

⁴⁸ Gaddis, Isis, and Janneke Pieters. *Trade Liberalization and Female Labor Force Participation: Evidence from Brazil*. Institute for the Study of Labor, Aug. 2012, <http://ftp.iza.org/dp6809.pdf> Pp, 26

⁴⁹ World Bank, World Development Indicators, 2016; Labor Force Participation Rate, ILO.

⁵⁰ “Women's Economic Opportunities in the Formal Private Sector in Latin America and the Caribbean: A Focus on Entrepreneurship,” International Bank for Reconstruction and Development/World Bank, 2010, p. 15.

women are launching their own companies and even more in visible senior positions, holding 45 percent of managerial jobs and 30 percent of executive positions as of 2009.⁵¹

However, there are still many challenges that impede Brazilian women's economic advancement, as discussed earlier in this paper, including the undervaluing of gendered forms of labor and the broader hierarchies and structures of labor through gender and race, particularly attitudes toward women's involvement in the workplace. Many of Brazil's working class women are primarily clustered in informal occupations with little to no job security as low-paying employees. About one in six full-time working women are domestic workers who are employed by middle- and upper-class Brazilians.⁵² The gender wage gap is another example of the challenges women must combat within the workforce; during 2007 and 2008, the estimated gender pay gap was 38.5 percent where women's employment stands at 9 percent compared to men's employment rate of 6 percent.⁵³

Millions of women still live in poverty regardless of Brazil's economic progress. Poor women have an average of two or three years of schooling, and among poor adults – those whose income is less than \$100 per month – 27 percent are illiterate. Yet, these illiterate individuals can work in nonmonetary activities such as agricultural work on family farms, but women are still disadvantaged as a collective group where women own only 11 percent of the land, and their

⁵¹ Sylvia Ann Hewlett and Ripa Rashid, *Winning the War for Talent in Emerging Markets: Why Women Are the Solution* (Harvard Business Review Press, 2011), p. 59.

⁵² "Women's Economic Opportunities in the Formal Private Sector in Latin America and the Caribbean," p. 102; National Household Surveys published by the Brazilian Institute of Geography and Statistics [IBGE].

⁵³ "An Overview of Women's Work and Employment in Brazil," *Decisions for Life MDG3 Project, Country Report No. 12*, University of Amsterdam / Amsterdam Institute for Advanced Labour Studies (AIAS), p. 6; "Women's Economic Opportunities in the Formal Private Sector in Latin America and the Caribbean," p. 107.

property is usually smaller than the property owned by males.⁵⁴ Thus, poor women tend to be the most disadvantaged due to their isolation. Cultural relationships, like machismo-culture force women to be dependent on the patriarchal traditions that are entrenched within Brazilian society. While there is no legal obstruction to accepting higher paying jobs, traditional values and attitudes are understood as being unsuitable for women. However, as is apparent in many other countries, more women are becoming more educated.

For Brazilian women, education is more readily available and in favor of women. Brazilian women are becoming more and more educated where at least 60 percent of tertiary degrees are awarded to women.⁵⁵ This makes Brazilian women more educated than men with tertiary education participation being greater than male participation.⁵⁶ More will be discussed on this analysis as the paper progresses.

Compared to Brazil, India is also an emerging economy and an emerging world leader with booming growth, distinct manufacturing capabilities due to its central and agricultural position, and an expanding force in the Information Technology (IT) sector. As the second largest population in the world, India “generates 14 percent of the global talent, among which are the 5.5 million women entering India’s workforce each year.”⁵⁷ Still, India’s female labor participation rate lags behind many other recorded countries, only above countries like Tunisia, Sudan, and Saudi Arabia.⁵⁸ India’s FLFP reached an all-time high of 36 percent in 2005, almost

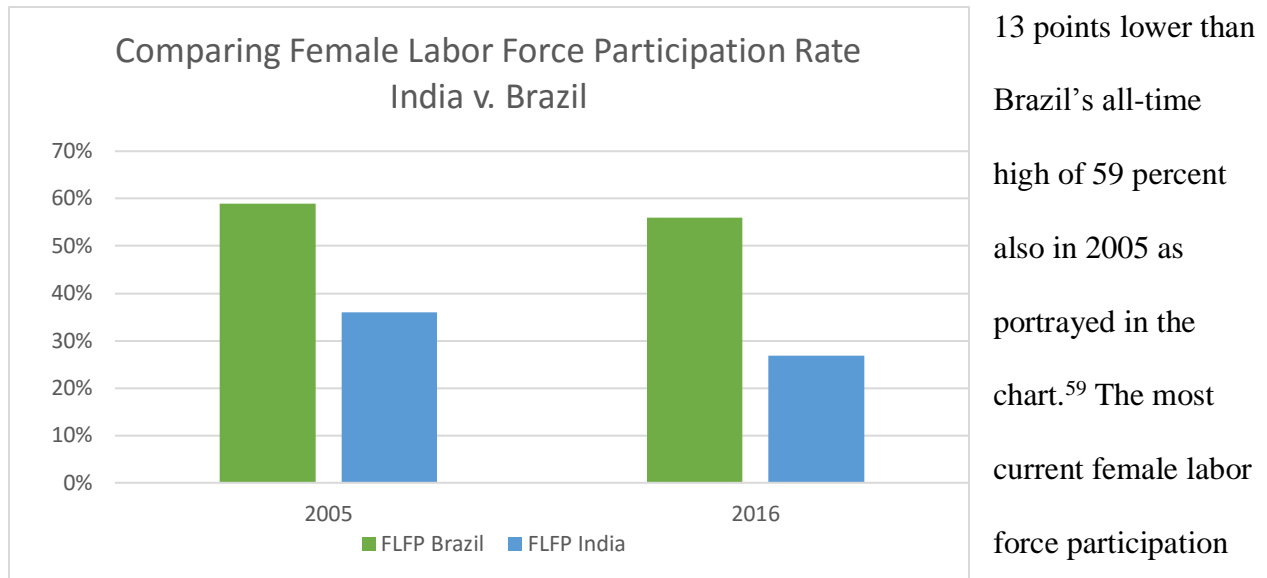
⁵⁴ “World Development Report 2012: Gender Equality and Development,” World Bank, 2011, p. 18.

⁵⁵ Hewlett and Rashid, p. 60.

⁵⁶ Agenor, P.-R., and O. Canuto, 2013, “Gender Equality and Economic Growth in Brazil. A Long-Run Analysis,” World Bank Policy Research Working Paper 6348 (Washington).

⁵⁷ Sylvia Ann Hewlett et al., “The Battle for Female Talent in India,” Center for Work-Life Policy, 2010.

⁵⁸ World Bank, World Development Indicators, 2016; Labor Force Participation Rate, ILO.



rate for India, conducted in 2016, was 26.9 percent.⁶⁰ According to the World Economic Forum's Global Gender Gap, India ranks 114 of 142 in the world for gender-based disparities.⁶¹ This disparity between not only Brazil and India's highest FLFP, 59 percent and 26 percent respectively in 2005, and the current diversity of Brazil (56 percent) and India's (26.9 percent) female labor force participation is intriguing given that they are both emerging economies and democracies.

Yet, an examination of women's place in society illustrates that women must negotiate specific obstacles and challenges in obtaining economic empowerment and professional success. The success of India's economy is impressive, but too many women are still stunted in their economic advancements because of a combination of gender discrimination, cultural beliefs/restrictions, and lack of resources. India recently introduced the Protection of Women from Domestic Violence Act (2005), more commonly referred to as the Domestic Violence Act, which for the first time ever legally defined domestic violence. The definition is relatively broad,

⁵⁹ Ibid.

⁶⁰ World Bank, World Development Indicators, 2016; Labor Force Participation Rate, ILO.

⁶¹ World Economic Forum, "The Gender Gap Index 2014"

including not only physical violence but also emotional, sexual, and economic abuse, but the act has little implementation with no intention of criminalization.⁶² Within India, there are over 1,000 “honor killings”⁶³ occurring each year.⁶⁴ Wife beating, rape, dowry related deaths, feudal violence towards tribal and lower caste women are all examples of the most serious “obstacles in achieving women’s empowerment.”⁶⁵

Regarding female empowerment, 45 percent believe they are mistreated at work because of their gender. A survey of Indian employers conducted in 2010 by the World Economic Forum found that only 10 percent of women hold senior management positions in 60 of the 100 “best employers in India.”⁶⁶ A woman’s salary of \$1,185, essentially one third of a man’s \$3,698 in corporate India is abysmal, and the government is doing even less to facilitate closing this gender gap. The government of India has social welfare programs that pay their women employees less than the government mandated minimum wage and do not offer benefits like retirement packages or healthcare.⁶⁷ Thus, as will be explained within this paper, Brazil’s ability to ease women into the private-sector and cultivate their entrepreneurial spirit through tertiary education has allowed for greater female labor force participation rate growth as compared to India.

⁶² The Protection of Women from Domestic Violence Act, No. 43 of 2005; India Code (2005).

⁶³ Feminist and postcolonial scholarship has widely problematized this term as an antiquated colonial concept; however, I will keep this terminology as it has been used by the author of the article I reference.

⁶⁴ Faiz Jamil, “Honour crimes, the scourge of South Asia,” CBC News, Jan. 30, 2012, www.cbc.ca/news/world/story/2012/01/30/f-honour-killings-south-asia.html.

⁶⁵ Upadhyay, Reecha. “Women’s Empowerment in India: An Analytical Overview.” (n.d.): 14. The Asia Foundation. Web. 15 July 2017. Pp, 3.

⁶⁶ Rema Nagrajan, “Unequal pay for equal work dogs working women in India: Study,” Times of India, Mar. 9, 2011, http://articles.timesofindia.indiatimes.com/2011-03-09/india/28671960_1_gender-parity-equal-remuneration-act-wage-discrimination.

⁶⁷ Ibid.

Many India women do not have ample access to not only healthcare, social welfare programs, transportation, and most importantly, quality education. However, there is a key distinction to be made between the female labor force participation rate in India than in Brazil. India's FLFP varies significantly not only between urban and rural areas, where urban participation is higher because they are working within the formal economy and not agriculture. One potential reason for this disparity between urban and rural female labor force participation rates in India can be attributed to the understanding that urban migration allows for "better employment opportunities, higher incomes, better healthcare, and education facilities, urban facilities and way of life, protection from conflicts."⁶⁸ Therefore, those in rural cities tend to not only be poorer but also illiterate and unskilled due to the lack of quality facilities, which impacts the rural population's ability to find a job as a formal employee. As unskilled laborers, the uneducated in rural populations or even those who are uneducated and have migrated to urban areas contract informal means of employment, usually as casual workers, which makes it harder for these women to be accounted for in the FLFP rate.

Female labor force participation rates also differ greatly between Indian states with rates higher in the Southern states compared to the North.⁶⁹ These variations and differences in labor force participation rate for the South are significant and may be attributed to much of the southern Indian cities are relatively newer compared to the North Indian cities and have greater access to international trade as they are near the Bay of Bengal and the Arabian Sea. Also, the southern states are smaller in size, which allows them to have better per-capita incomes, better

⁶⁸ Arnal, Elena, and Michael Forster. Growth, Employment, and Inequality in Brazil, China, India, and South Africa: An Overview. OECD Secretariat. Pp, 16

⁶⁹ IMF, Sonali Das, Sonali Jain-Chandra, Kalpana Kochhar and Naresh Kumar, "Women Workers in India: Why So Few Among Many?" IMF Working Paper, March 2015.

HDI, better literacy, and better governance. Regardless, there is still a significant diversity between Brazil and India's female labor force participation that must be understood as these countries have specific similarities.

Women in Brazil are becoming increasingly more educated where at least 60 percent of tertiary degrees go to women, but overall educational attainment has been rising at any level of education.⁷⁰ This increase in educational attainment levels can be attributed to how Brazil has increased their public investment in education, financing each section of education – primary, secondary, and tertiary – without favoring one section of educational attainment. According to the OECD's country note, Brazil's "public educational expenditure rose from 3.5 percent of GDP in 2000 to 6.1 percent in 2011," and in 2011, Brazil spent 19 percent of its total expenditure on education.⁷¹ There is marginal discrepancy in OECD's findings compared to UNESCO's Institute of Statistics, which claims that Brazil's total expenditure in education in 2011 was closer to 15.3 percent compared to OECD's country note.⁷² Additionally, Brazil spends relatively stable amount of expenditure on tertiary students compared to primary and secondary students; in terms of purchasing power parity (PPP), Brazil spends US \$3,168.49 per student in primary education, US \$3,420.74 per student in secondary education, and US \$4,665.74 per student in tertiary education.⁷³ This explains why there is a large incentive for, not only women, but Brazilian citizens to continue their education knowing that their educational attainment is not only economically advantageous for their own families but the government monetarily shows

⁷⁰ Hewlett and Rashid, 59.

⁷¹ OECD. "Education at a Glance 2014." *Country Note*, Organization for Economic Cooperation and Development, 2014, www.oecd.org/edu/EAG2014-Country-Note-Brazil.pdf.

⁷² "Brazil." *UNESCO UIS*, UNESCO Institute of Statistics, 12 Apr. 2017, uis.unesco.org/country/BR.

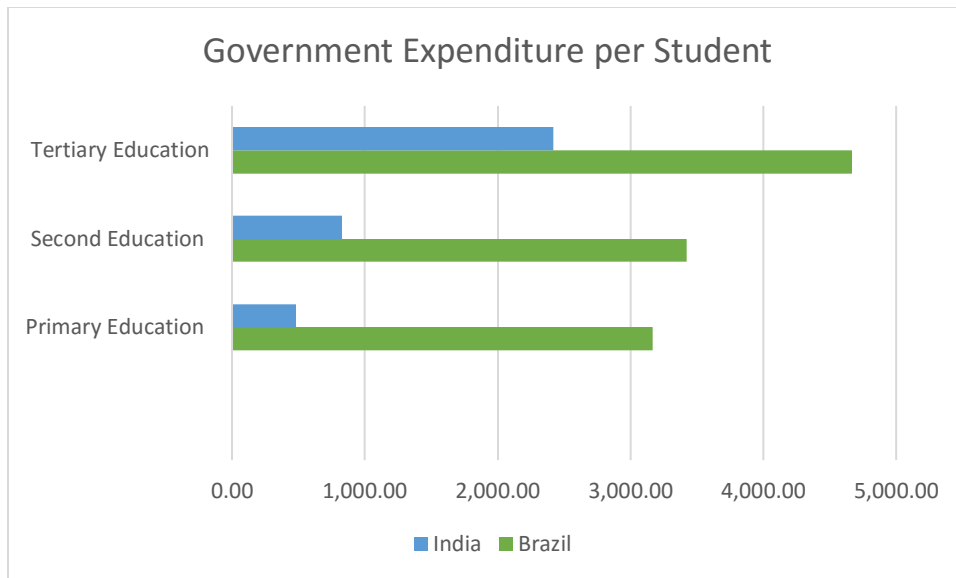
⁷³ *Ibid.*

their appreciation. With this increase in public expenditure in not only general education but specifically tertiary education may be one explanation for why Brazil's female labor participation rate has continued to increase over time.

India, on the other hand, has emphasized developing its tertiary school system but to the extent that government expenditure per student (in PPPs) for tertiary education is five times greater than primary education. In terms of government expenditure, India spent only 3.84 percent of their GDP compared to Brazil's 6 percent on education; and in terms of total government expenditure, India spent 14.09 percent and Brazil 15.97 percent in 2013. Brazil spends almost twice as much as India on education as based as a percentage of GDP, but in terms of total government expenditure there is only a one percent difference. This one percent point difference in education in total government expenditure can be attributed to India's push for strengthening their post-secondary education system.

India's government expenditure per student for primary education is US \$480.74, US \$827.51 for secondary education, and exponentially increases to US \$2,419.14 for tertiary education.⁷⁴ Whereas, as previously mentioned, Brazil's government expenditure per student is US \$3,168.49 for primary education, US \$3,420.74 for secondary education, and US \$4,665.74 for tertiary education as the chart below illustrates.

⁷⁴ "India." *UNESCO UIS*, UNESCO Institute of Statistics, 12 Apr. 2017, uis.unesco.org/country/IN.



Thus, there is an increase in each additional sector of education for Brazil, but India's dramatic increase in funneling money for tertiary education further exacerbates how many Indian women do not have sufficient access to quality primary and secondary education, which are necessary for acceptance into post-secondary schooling. By allocating most government expenditure to tertiary education, there is a failure on the Ministry of Education and other government entities in India to ensuring that all girls regardless of socioeconomic status, ethnic affiliation, or caste relation have access to high quality primary and secondary education. And with five times more money being spent on tertiary education in India, there is little incentive to reach those disadvantaged and overlooked by primary and secondary schools, which are necessary to ensure tertiary degree completion.

In terms of female labor force participation rate and education for Indian women, it is imperative to understand how schooling can impact this female labor force participation rate. While India has accelerated their pace of female education over time⁷⁵, the average years

⁷⁵ see Bhallir, Surjit S. and Ravinder Kaur, "Labour Force Participation of Women in India: Some Facts, Some Queries," LSE Asia Research Centre Working Paper Series #40, 2011. Pp, 8.

expected and then the mean years of schooling for women are comparatively lower than that of Brazilian women. To ensure that the methodology is measured the same, the following information comes from the 2016 Human Development Report (HDR), which uses health, educational, and income indicators used to rank countries in term of “development.” For India, the expected years of schooling for women was 11.9, and the average years of schooling for females with 2015 data was 4.8 years.⁷⁶ In Brazil, not only is the expected years of schooling almost 4 points higher at 15.7, but the mean years of schooling is double that of India’s where Brazil’s mean years of schooling for Brazilian women is 8.1 years.⁷⁷ This dramatic difference in Brazil’s average years of schooling also explains why they have a greater population with “at least some secondary education” and higher female labor force participation rate. At least 59.1 percent of Brazilian women have had at least some sort of secondary education, and Brazil’s FLFP rate is 56.3 percent as of 2015.⁷⁸ Meanwhile, only 35.3 percent of India’s women have had at least some sort of secondary education teaching, and India’s FLFP rate is 26.8 percent.⁷⁹ Thus, it is clear how Brazil has emphasized the importance of education not only evident through their greater average of schooling years but also through the equal allocation of government expenditure per student on various levels of education.

While women’s participation in the labor force is often complex because it can reflect change in economic activity, educational attainment, fertility rates, social norms, and additional factors, Brazil’s ability to sustain a higher female labor force participation rate over the past 20

⁷⁶ “Human Development Report 2016 – India.” *Human Development Reports*, United Nations Development Program, hdr.undp.org/sites/all/themes/hdr_themes/country-notes/IND.pdf. Pp, 5.

⁷⁷ *Ibid*, 5.

⁷⁸ *Ibid*, 6.

⁷⁹ *Ibid*, 6.

years may be attributed to their focus on allocating the amount of government resources, specifically balancing their financial contributions to primary, secondary, and tertiary education. Expenditure per student from primary to secondary education doubled between 2000 and 2008, indicating that Brazil has prioritized education compared to other areas of investment. Therefore, having this tertiary education has influenced female labor force participation in the Brazilian workforce may have greatly increased by women's increasing educational attainment and their ability to work in a more modern economy.

The more educated young people in Brazil are more likely to be employed. In fact, the results of labor force participation rate disaggregated by gender in Brazil shows women have been continuously increasing their engagement into the labor market from 1985 to 2007. From a rate of 44 percent in 1985, Brazilian women's participation in the formal economy has reached 59 percent in 2007.⁸⁰ Scorzafave and Menezes-Filho explain that this increase in female labor force participation may be generalized as the increase occurs among more educated women but also among less educated women. Another explanation for this growth, according to Scorzafave and Menezes-Filho, may be because of new generations of women that are more engaged in the labor market than previous generations.⁸¹ To show the evolution of participation rates by educational groups, the sample is divided into four groups: up to 3 years of schooling, 4 to 7 years, 8 to 11 years, and lastly 12 or more years. The chart below shows that the educational

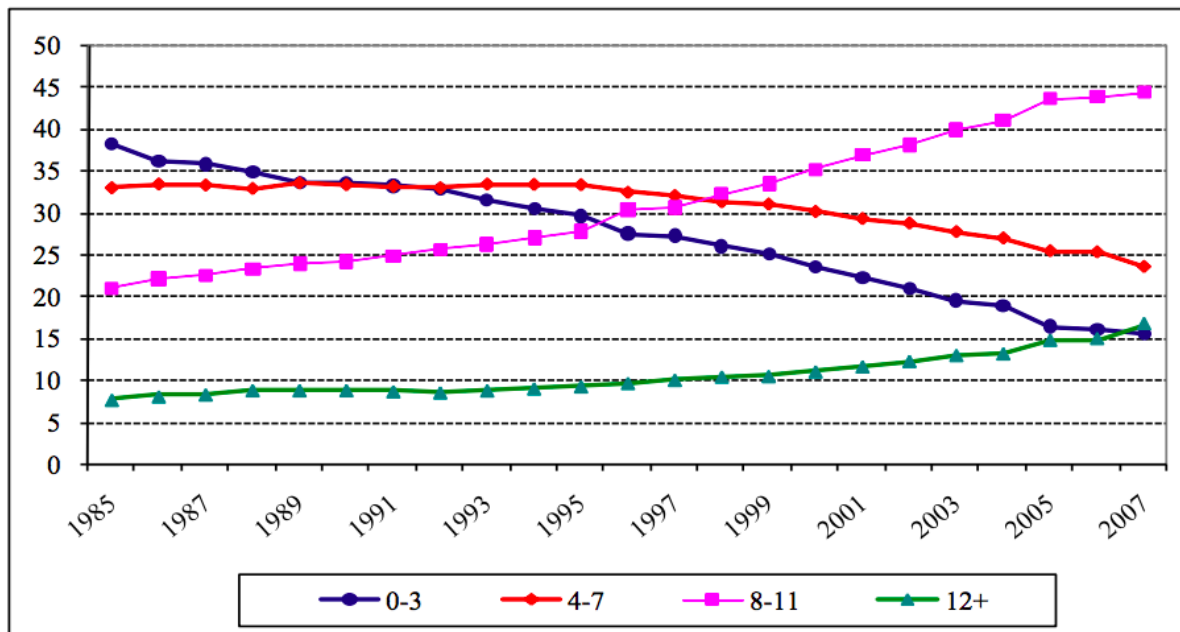
⁸⁰ Pesquisa Nacional por Amostra de Domicílios (PNAD), 1985-2007.

⁸¹ Scorzafave, L. and N. Menezes-Filho (2001), "Participação Feminina no Mercado de Trabalho Brasileiro: Evolução e Determinantes", *Pesquisa e Planejamento Econômico*, Vol. 31, No. 3, pp. 441-478.

composition of the labor force in Brazil has been constantly varied.⁸²

Labour force composition by education, 1985-2007

(in percentage by years of schooling)



The figure illustrates that in 1987, those with up to 3 years of schooling were the larger group in the labor market and people with 8 to 11 years of schooling were only the third largest.

Nevertheless, over the past 20 years, there has been a reversal of these numbers where in 2007, those with 8 to 11 years of schooling now represent more than 44 percent of the Brazilian labor force.

⁸² Source of graph: Pesquisa Nacional por Amostra de Domicílios (PNAD), 1985-2007.

According to the Higher Education Census presented below⁸³, the Brazilian share of

**UNIVERSITY DEGREES: FEMALE STUDENTS WHO CONCLUDED THE COURSE
ACCORDING TO FIELDS OF KNOWLEDGE BRAZIL**

Fields of Knowledge	Concluded					
	1994			2005		
	Total	Women	Female share (%)	Total	Women	Female share (%)
Brazil	245.887	150.339	61,1	717.858	446.724	62,2
Education	26.158	24.119	92,2	199.392	161.695	81,1
Humanities and arts	26.323	20.630	78,4	24.810	16.108	64,9
Social Sciences, Business and Law	100.979	55.298	54,8	277.572	150.958	54,4
Sciences, Mathematics and IT	30.175	17.657	58,5	56.436	22.061	39,1
Engineering, Production and Construction	19.491	5.081	26,1	36.918	10.892	29,5
Agriculture and Veterinary	5.274	1.671	31,7	11.874	4.834	40,7
Health and Social Welfare	35.687	24.621	69,0	90.610	66.600	73,5
Services	1.435	1.110	77,4	20.246	13.576	67,1

Source: MEC/INEP – Higher Education Census: special tables (Brazil.)

females with tertiary education reaches 62 percent. Women’s desired degrees remain rooted in traditional “feminine” fields of knowledge like education (81 percent of women), Health and Social

Welfare (74 percent), Humanities and Arts (65 percent).⁸⁴ Yet, there has been an increase of women’s presence in Engineering, Production, and Construction where women’s participation increased from 26 percent to 30 percent.

Now that we understand how women in Brazil are entering colleges and universities and obtaining degrees, the chart below from the Relacao Annual de Informacoes Sociais, which translates to the Annual Social Information Report, illustrates how women have migrated towards more educationally-intensive employment positions.

⁸³ Bruschini, Maria. “Work and Gender in Brazil in the Last Ten Years.” International Seminar on Work and Gender at Fundacao Carlos Chagas. Grupos de Pesquisas Socializacao de Genero e Raca , 2 Apr. 2007, Sao Paulo. Pp, Source of graph: MEC/INEP – Higher Education Census: special tables (Brazil).

⁸⁴ Bruschini, 12.

FEMALE SHARE IN SELECTED OCCUPATIONS SELECCIONADAS
BRAZIL

Occupation	1993		2004	
	Total	% of Women	Total	% of Women
Physicians	135.089	36,3	202.733	41,3
Lawyers	25.404	35,1	37.682	45,9
Public attorneys	6.508	40,6	6.694	43,3
Judges	10.818	22,5	11.337	34,4
Members of the Public Prosecution Service	–	–	6.159	40,9
Engineers	142.686	11,6	139.300	14,0
Architects	7.118	51,5	8.472	54,1

Source: MTE - Rais: 1993 e 2004

While the table titled “University Degrees: Female Students Who Concluded the Course According to the Fields of Knowledge Brazil” illustrates how women still dominate many traditional roles like nursing and teaching, women can be seen entering prestigious professional areas such as medicine, law, architecture, and engineering, which have traditionally been dominated by their male counterparts. This chart also illustrates how women have consolidated their presence in tertiary education and after their schooling have begun to occupy positions in the formal sector. In 1993, females had a presence of 12 percent in the engineering category and rose to 14 percent in 2004. During the same year (2004), women comprise over half of the architecture category at 54 percent, which can be viewed as a “feminization trend in the profession if we consider that women were already occupying 52 percent of these job positions in 1993.”⁸⁵ With this presented information, it can be summarized that universities have been accessible to women and women have not only entered but completed their tertiary degrees, contributing to Brazil’s ever-rising female labor force participation rate. When women can

⁸⁵ Bruschini, 14.

access and obtain a higher-level education, specifically tertiary education, women are able to infiltrate positions in the formal sector of the economy and contribute to a country's labor force.

This paper has emphasized the importance of tertiary educational attainment to securing formal jobs, which has contributed to the difference between Brazil and India's female labor force participation rates. India has one of the lowest female labor force participation rates "among emerging markets and developing countries."⁸⁶ Much like Brazil, in some elite institutions, the number of female students enrolled surpasses males. However, overall, "the number of males outnumbered in comparison with female," but there is still a "great advancement" in the "presence of women in colleges and universities."⁸⁷ The table below⁸⁸ illustrates that yes, the women in higher education is increasing gradually every four years, but India is behind Brazil by 20 percent of women as percent of all students.

Women Student Growth in Higher Education from 1950-51 to 2005-06

Year	Men (000s)	Women (000s)	Total Enrollment (000s)	Women as Percent of All Students
1950-51	157	17	174	10.00
1955-56	252	43	295	14.60
1960-61	468	89	557	16.00
1965-66	849	218	1067	20.40
1970-71	1563	391	1954	20.00

⁸⁶ Das, Sonali, et al. *Women Workers in India: Why So Few Among So Many?* International Monetary Fund, 2015. <https://www.imf.org/external/pubs/ft/wp/2015/wp1555.pdf>. Pp, 4.

⁸⁷ Nath, Shanjendu. "Higher Education and Women Participation in India." *Journal of Business Management & Social Sciences Research*, vol. 3, no. 2, pp. 44," <http://www.borjournals.com/a/index.php/jbmssr/article/viewFile/391/989>.

⁸⁸ Nath, 45. Source: Enrolment of women in higher education. (Selected Educational Statistics 2005-06; University Grants Commission, Annual Report, various years)

Year	Men (000s)	Women (000s)	Total Enrollment (000s)	Women as Percent of All Students
1975-76	2131	595	2426	24.50
1980-81	2003	749	2752	27.20
1985-86	2512	1059	3571	29.60
1990-91	2986	1439	4425	32.50
1995-96	4235	2191	6426	34.10
2000-01	4988	3012	8001	37.60
2005-06	6562	4466	11028	40.50

A study conducted from 2007 to 2014 found that the enrolment of girls in higher education increased from 39 percent to 46 percent, but female participation in India's labor force declined to a low of 27 percent in 2014. Additionally, 12 million women are *enrolled* in undergraduate course and may constitute 40 percent of women as percent of students but this does not equate to their continuation into the professional, formal means of employment.⁸⁹ Much of the literature I found clearly emphasized *enrolment rates* of females rather than their completion of higher education; therefore, it can be understood that *enrolment* may be growing within India but with transitioning to the formal sector, which would translate to a higher female labor force participation rate, there is some disconnect between completion and entering the workforce. Therefore, it is important to understand the statistics on how almost half of India's workers are employed in agriculture, compared to only 13 percent in Brazil.⁹⁰

⁸⁹ Salve, Prachi. "More India Women are Going to College, But Fewer are Working." *Scroll.in*, <https://scroll.in/article/812591/more-indian-women-are-going-to-college-but-fewer-are-working>.

⁹⁰ A Project of the Institute for Human Development, et al. "Labour Market Inequality in Brazil and India." 4 Nov. 2014, pp. 1–6., cebrap.org.br/wp-content/uploads/2017/03/principais-resultados-da-pesquisa-labour-market-inequality-in-brazil-and-india-4917.pdf.

India is often termed a “service-led”⁹¹ economy, but the industrial sector employment is “far less accessible to women than to men, limiting the benefits women can draw from productivity gains and training opportunities.”⁹² Therefore, many women turn to the informal economy. In India, the “informal economy account for nine out of every ten women working outside of agriculture” compared to Brazil’s 67 percent.⁹³ And because women in India have spent an average of 5 years in school⁹⁴, they are less likely to have obtained “transferable skills, such as problem-solving, critical thinking, creativity, and effective communication of ideas and information,” putting women at a disadvantage to enroll in technical or vocational related employment opportunities.⁹⁵ Many women in India may engage in the informal economy because women are unable to find paid employment in the formal economy and/or unable to enter the formal economy due to the fact that few women finish post-secondary and are unqualified to obtain specific jobs like engineering, law, or medicine as described for women in Brazil.

Thus, Brazilian female workers achieved advancement in the workforce through their integration and attainment in both the primary, secondary, and tertiary years of education where women surpass men at the higher education level. One explanation for Brazilian’s women’s success in their presence in the formal economy, and ultimately the rise of the female labor force participation rate in Brazil, can be attributed to the Brazilian’s government allocation of

⁹¹ A Project of the Institute for Human Development et al., pp, 6.

⁹² Leclercq, Francois. BRICS: Building Education for the Future: Priorities for National Development and International Cooperation. UNESCO, 2014. pp, 30

⁹³ Lim, Lin. “Female Labour-Force Participation.” pp. 203–221., www.un.org/esa/population/publications/completingfertility/RevisedLIMpaper.PDF, pp. 207

⁹⁴ see footnote 72.

⁹⁵ Leclercq, 29.

resources toward education. The Brazilian government not only spends twice as much of a percentage on education in the GDP compared to India, and, therefore, Brazil is able to spend almost double the amount of government expenditure per student in primary, secondary, and tertiary education compared to India. This decision to prioritize education and spend more of Brazil's GDP on all levels of education, relatively equally rather than overfunding tertiary education as the government does in India, furthers Brazil because women can become more educated, enter the formal economy, and contribute to the success of Brazil as an emerging economy. Thus, Brazil's economic decision to educate its citizens, focusing on dedicating comparable amounts to all sectors – primary, secondary, and tertiary, is one of the factors I have found to contribute to Brazil's increasing female labor force participation rate compared to India. India, on the other hand, tends to overcompensate its government expenditure on tertiary education – spending almost five times more on tertiary education than primary education – and ignores the importance of primary and secondary education, which will ultimately allow women to pursue higher education. Without the completion of tertiary educational degrees in India, women with primary and secondary schooling, are less likely to enter the formal workforce and raise the female labor force participation rate.

While the purpose of this paper is not to understand the reason for the government of India's decreased funding for education, the following factors may contribute to the Indian's government decision to not spend as much funding on education but also why India may be unconcerned with women's failure to complete, not just enroll in, tertiary education. Historically, with the colonization of India by the British, higher education was restricted only to men and only in 1854 were women allowed to enroll in primary school.⁹⁶ Women in India are often

⁹⁶ Nath, 44-46.

discriminated against as they are perceived as less intelligent due to “biological differences,” so entering higher institutions becomes extremely difficult. This is not to say that women in Brazil are not experiencing discrimination in their obtainment of higher education, but with 60 percent of tertiary degrees being awarded to Brazilian women, there is no longer as much of a stigma attached to women entering and completing higher education.

Conclusion

This paper has sought to explain the diversity between India and Brazil’s female labor force participation rates as they are both emerging economies and democracies. My research has allowed me to conclude that a government’s decision to spend its own resources relatively equally on each sector of education (primary, secondary, and tertiary) funnels women into completing higher education. With Brazil’s comparable allocation of government funding in primary and secondary, Brazil builds the foundation for women to complete tertiary degrees and enter the formal workforce where their participation in the labor market is better recorded and may be one source of contribution to the rise of Brazil’s female labor force participation rate.

The modern attitude, as seen through the Sustainable Development Goals and the Millennium Development Goals, views education as an instrument for women’s equality and development measure by a country’s female labor force participation rate. When women account for more than half of the global population, there is no need for any disparity between countries female labor force participation rates, which can be attributed to a women’s ability to obtain a comprehensive education complete with a tertiary degree. As Nath states, “over all development of a society depends on the development of its total members. But if half of its members are

lagged behind, obviously it will create hindrance to the development.”⁹⁷ Therefore, a country’s ability to fund, supply, and educate women may not only increase the country’s female labor force participation rate but also amplifies the country’s overall development with women contributing and included in the formal salaried workforce.

⁹⁷ Nath, 45.