

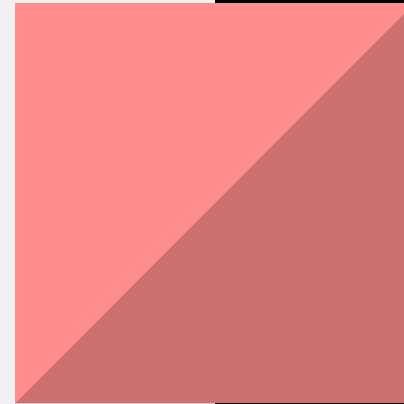


FEMINIST ECONOMICS AND THE CAPABILITY APPROACH

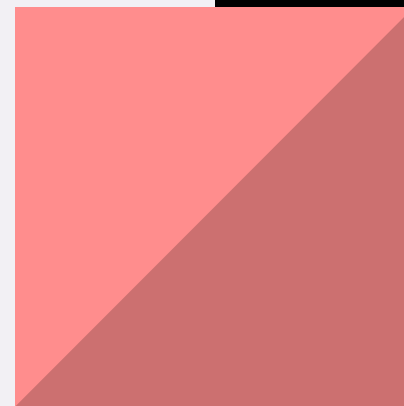
An overview of the gender wage gap in Brazil

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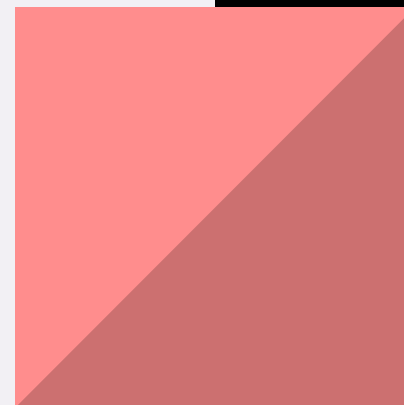
OVERVIEW OF THE GENDER WAGE GAP



More women in the labour force, but persistence of the wage gap and restriction of opportunities (WORLD BANK, 2011)



In Brazil, women's wages are approximately 23% smaller than men's (IBGE, 2020, data from 2019)



Santos and Moura (2021) identify some drivers of the gender wage gap in Brazilian economic literature, but the analysis of the wage gap together with other factors that also have implications for women's well-being is still scarce.

OBJECTIVES

- **This work aims to point out the main causes of the gender wage gap in Brazil**

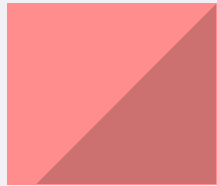


Literature review: identify the explanations found in the capability approach and feminist economics literature for the gender wage gap and identify convergences and divergences between the two approaches



Data analysis: elaborate an overview of the gender wage gap in Brazil between 2012 and 2021 using data from IBGE

THE CAPABILITY APPROACH



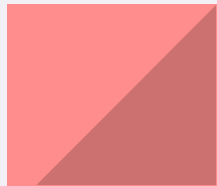
Capabilities: what people can do and be (SEN, 1999);
Capabilities: potencial functionings and functionings are beings and doings (ROBEYNS, 2003)



"Resources are only the means to enhance people's well-being"
(ROBEYNS, 2003, p.63)



"Inequalities in resources can be significant causes of inequalities in capabilities" (ROBEYNS, 2003, p.64)



"A complete analysis of gender inequality should not only map the gender inequalities in functionings and capabilities, but also analyze which inequalities in resources cause gender inequalities in capabilities and functionings." (ROBEYNS, 2003, p.64)

Capability Approach and gender inequalities

- **Nonmarket care and domestic work capabilities can have a negative impact for the caregivers, that are usually women**

(ROBEYNS, 2003)

- **The deprivation of individual capabilities can be related to a lower income**

(SEN, 1999)

- **In western societies: equal access to formal education for boys and girls, but gendered social norms affect girl's decisions**

(ROBEYNS, 2003)

- **Difference of opportunity shapes choices and aspirations**

(NUSSBAUM, 2000)

Feminist economics

- **Freedom as an important demand and value for feminist theory and analysis (positive freedom)**

(GASPER & STAVEREN, 2003)

- **Negative freedom notion sees the human being as independent, or, in other words, someone that doesn't need to be cared**

(GASPER & STAVEREN, 2003)

Feminist economics and the capability approach

SHARED IDEAS

- **Interpretation of freedom as positive freedom**

**positive freedom = opportunity
aspect of freedom = capability
(QUIZILBASH, 2005)**

- **Discussion about nonmarket care and domestic work**

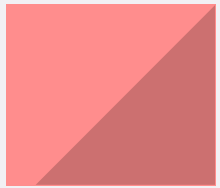
DIFFERENCES

- **Centrality of the lack of autonomy**

→ **For feminist economics the
lack of autonomy is centered
on income**

→ **For the capability approach
the lack of autonomy is
wider**

DATA ANALYSIS



Data Base: PNAD - IBGE (2012-2021)

→ **Descriptive statistics**

→ **IOp**

Gender differences

Gender Wage Gap

X

Years of study

● 2012: women's wages were approximately 27% smaller than men's

(PNAD, IBGE)

● 2021: women's wages were approximately 20% smaller than men's

(PNAD, IBGE)

● 2012: women had 14,95% more years of study than men

(PNAD, IBGE)

● 2021: women had 12,33% more years of study than men

(PNAD, IBGE)

Average hours worked per week

Table 1 : Average hours worked per week according to gender (2012-2021)

Hours	Men	Women
Up to 14 hours	2,1%	6,0%
15 to 39 hours	16,2%	29,1%
40 to 44 hours	51,1%	45,8%
45 to 48 hours	15,2%	10,3%
49 hours or more	15,5%	8,7%

Source: PNADs and author's tabulation

Occupational segregation by gender

Table 2 : Participation by sector of activity according to gender (2012 and 2021)

Sector	2012		2021	
	Men	Women	Men	Women
Agricultural	79,7% (8,507,802)	20,3% (2,169,171)	80,0% (7,161,740)	20,0% (1,786,840)
Transformation Industry	65,6% (7,246,365)	34,4% (3,801,429)	66,7% (6,538,126)	33,3% (3,269,664)
Construction	96,1% (6,893,609)	3,9% (280,643)	96,3% (6,158,672)	3,7% (239,407)
Services	62,0% (21,074,662)	38,0% (12,894,632)	62,5% (22,021,095)	37,5% (13,216,005)
Professional, Scientific and Technical Activities	57,6% (1,701,781)	42,4% (1,254,815)	52,2% (1,887,090)	47,8% (1,726,178)
Public Administration	56,2% (3,143,925)	43,8% (2,451,116)	62,7% (3,040,324)	37,3% (1,805,768)
Education	24,7% (1,207,092)	75,3% (3,687,034)	27,9% (1,728,241)	72,1% (4,473,346)
Health and social work	25,4% (857,791)	74,6% (2,515,122)	28,0% (1,402,759)	72% (3,613,238)
Domestic Services	7,4% (442,665)	92,6% (5,511,537)	9,4% (448,117)	90,6% (4,300,771)
Other Activities	38,8% (1,808)	61,2% (2,850)	28% (623)	72% (1,601)
Total	59,6% (51,077,401)	40,4% (34,568,348)	59,4% (50,386,788)	40,6% (34,432,817)

Notes: Between parentheses is the number of observations in the sample, using the appropriate weight. Source: PNADs and author's tabulation

Inequality of opportunity (IOp)

- **Equality of opportunity (ROEMER, 1998) -> similarities with the capability approach (Krishnakumar, 2014)**

➔ Inequality from effort X Inequality from circumstances

- **To calculate the IOp: methodology proposed by Juárez and Solaga (2014)**

$$\hat{y} = E[y|C] \quad (1)$$

$$\theta a = I(\hat{y}) \quad (3)$$

$$w_{ist} = E[w_{ist} | (gender_{ist}, race_{ist})] \quad (2)$$

$$\theta r = I(\hat{y})I(y) \quad (4)$$

Circumstances regression

Table 3: Circumstances regression results on earnings by OLS

Panel A: 2012										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Woman	-781.0*** (12.63)	-668.8*** (1.239)	319.2*** (2.952)	-495.4*** (0.741)	-1,143*** (4.148)	-692.3*** (2.524)	-655.5*** (1.816)	-1,627*** (3.328)	-270.1*** (1.089)	-781.0*** (12.63)
Black	-655.6*** (12.99)	-666.0*** (1.189)	-501.9*** (1.175)	-653.2*** (0.718)	-1,345*** (4.399)	-1,100*** (2.507)	-553.8*** (1.575)	-1,141*** (2.956)	-91.14*** (0.589)	-655.6*** (12.99)
Constant	1,998*** (12.22)	1,916*** (0.916)	1,459*** (0.945)	1,874*** (0.574)	3,547*** (3.087)	3,200*** (2.099)	2,346*** (1.725)	3,691*** (3.090)	848.2*** (1.108)	1,998*** (12.22)
Obs	42,076	11,505,395	7,138,840	30,886,735	2,937,850	5,589,529	4,876,648	3,359,312	5,941,803	42,076
R-squared	0.121	0.048	0.027	0.039	0.051	0.043	0.049	0.105	0.014	0.121
Panel B: 2021										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Woman	403.5*** (21.96)	-993.9*** (1.957)	841.2*** (4.184)	-628.8*** (1.084)	-1,561*** (6.159)	-1,123*** (4.946)	-1,289*** (2.615)	-3,036*** (6.505)	-297.8*** (0.850)	403.5*** (21.96)
Black	-1,174*** (21.14)	-1,054*** (1.846)	-735.1*** (1.644)	-1,111*** (1.049)	-1,799*** (6.572)	-1,837*** (4.782)	-698.9*** (2.344)	-2,900*** (5.859)	-105.8*** (0.518)	-1,174*** (21.14)
Constant	2,779*** (18.41)	3,171*** (1.465)	2,207*** (1.344)	3,054*** (0.868)	5,472*** (4.776)	6,081*** (3.940)	4,406*** (2.499)	7,405*** (6.106)	1,256*** (0.870)	2,779*** (18.41)
Obs	46,024	10,117,355	6,365,365	31,983,124	3,580,749	4,844,848	6,191,716	4,992,892	4,699,352	46,024
R-squared	0.073	0.053	0.038	0.043	0.037	0.037	0.051	0.086	0.035	0.073

Notes: Sectors of activity (1) Agricultural; (2) Transformation Industry; (3) Construction; (4) Services; (5) Professional, Scientific and Technical Activities; (6) Public Administration; (7) Education; (8) Health and social work; (9) Domestic Services; (10) Other Activities. Standard error in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Source: PNADs and author's tabulation

Years of study

Table 4: Average years of study by sector of activity according to gender

Panel A: 2012											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	Total
Men	5,57 (4,14)	9,84 (3,78)	7,40 (3,87)	9,87 (3,89)	13,03 (3,62)	11,85 (3,92)	13,51 (3,32)	13,31 (3,20)	6,07 (3,92)	14,34 (3,55)	9,16 (4,44)
Women	5,91 (4,11)	9,95 (3,92)	11,29 (4,24)	10,66 (3,65)	13,83 (2,70)	13,20 (3,32)	13,68 (3,21)	12,94 (2,92)	7,24 (3,64)	15,10 (1,40)	10,53 (4,17)
t ^a	5,49	1,50	16,84	24,77	7,93	18,76	2,09	-3,65	8,33	1,07	24,58
Panel B: 2021											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	Total
Men	7,51 (4,25)	11,23 (3,34)	8,98 (3,78)	11,11 (3,47)	14,83 (2,16)	13,12 (3,43)	14,66 (2,47)	13,84 (2,69)	8,04 (3,94)	16,00 (0,00)	10,79 (4,03)
Women	8,17 (4,15)	11,51 (3,38)	13,98 (3,34)	11,95 (3,15)	14,82 (1,85)	14,100 (2,84)	14,76 (2,47)	13,72 (2,56)	8,61 (3,56)	16,00 (0,00)	12,11 (3,69)
t ^a	5,43	2,77	12,87	15,47	-0,13	8,77	0,95	-0,98	1,98	2,15	13,61

Notes: Sectors of activity (1) Agricultural; (2) Transformation Industry; (3) Construction; (4) Services; (5) Professional, Scientific and Technical Activities; (6) Public Administration; (7) Education; (8) Health and social work; (9) Domestic Services; (10) Other Activities. Standard error in parentheses. (a) T test for average. Source: PNADs and author's tabulation

Table 5: IOp results by sector of activity (2012 and 2021)

Sector	2012		2021	
	Absolute	Relative	Absolute	Relative
Agricultural	0,09046	0,20307	0,03872	0,10398
Transformation Industry	0,06579	0,17778	0,05333	0,15279
Construction	0,02283	0,07729	0,02260	0,07989
Services	0,04884	0,12695	0,04206	0,11569
Professional, Scientific and Technical Activities	0,06047	0,12485	0,04438	0,10328
Public Administration	0,03832	0,08366	0,02458	0,05930
Education	0,03012	0,09139	0,02213	0,07691
Health and social work	0,11142	0,25507	0,16279	0,33564
Domestic Services	0,01016	0,04219	0,00541	0,02517
Other Activities	0,09046	0,20307	0,03871	0,10397
Total	0,05476	0,12094	0,04596	0,10453

Source: PNADs and author's tabulation

Wage

Table 6: Average monthly wage by gender and sector of activity (2012 and 2021)

Panel A: 2012											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	Total
Men	R\$918,37 (1656,96)	R\$1624,84 (2392,60)	R\$1139,84 (1495,35)	R\$1529,49 (2265,59)	R\$3085,25 (4225,00)	R\$2640,19 (3304,62)	R\$2099,59 (2328,34)	R\$3250,83 (4419,17)	R\$792,77 (2299,37)	2571,36 (2413,05)	R\$1559,20 (2413,05)
Women	R\$692,38 (1554,64)	R\$979,48 (1217,48)	R\$1547,76 (2248,09)	R\$1058,76 (1408,56)	R\$2021,71 (2371,57)	R\$2023,49 (2567,80)	R\$1447,16 (1512,66)	R\$1597,03 (1793,90)	R\$521,04 (318,20)	R\$1778,43 (1561,10)	R\$1143,78 (1556,24)
t ^a	-6,23	-20,22	2,99	-26,52	-8,42	-9,66	-11,14	-10,96	-2,07	-2,57	-34,9
Panel B: 2021											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	Total
Men	R\$1689,47 (3000,76)	R\$2668,32 (3435,19)	R\$1722,55 (1962,79)	R\$2417,31 (3553,85)	R\$4877,30 (7019,83)	R\$5102,74 (5325,18)	R\$4064,67 (4103,34)	R\$6111,80 (11169,64)	R\$1190,75 (692,24)	R\$4500,00 (,00)	R\$2675,43 (4212,41)
Women	R\$1398,86 (2399,16)	R\$1686,43 (1980,68)	R\$2662,84 (2840,16)	R\$1839,98 (2353,59)	R\$3340,69 (4296,74)	R\$4150,71 (5313,93)	R\$2778,11 (2336,03)	R\$3012,74 (3675,96)	R\$887,79 (516,88)	R\$9107,38 (1231,36)	R\$2150,94 (2862,14)
t ^a	-3,40	-11,34	3,63	-11,42	-5,31	-5,24	-8,27	-2,80	-5,74	0,73	-11,57

Notes: Sectors of activity (1) Agricultural; (2) Transformation Industry; (3) Construction; (4) Services; (5) Professional, Scientific and Technical Activities; (6) Public Administration; (7) Education; (8) Health and social work; (9) Domestic Services; (10) Other Activities. Standard error in parentheses. (a) T test for average. Source: PNADs and author's tabulation

Table 7: Shapley Decomposition of Inequality of opportunity (2012 and 2021)

Sector	2012		2021	
	Gender (%)	Race (%)	Gender (%)	Race (%)
Agricultural	5,90%	94,10%	4,43%	95,57%
Transformation Industry	48,07%	51,93%	44,03%	55,97%
Construction	7,66%	92,34%	18,17%	81,83%
Services	34,82%	65,18%	22,48%	77,52%
Professional, Scientific and Technical Activities	44,47%	55,53%	46,12%	53,88%
Public Administration	26,78%	73,22%	24,03%	75,97%
Education	51,35%	48,65%	73,29%	26,71%
Health and social work	61,35%	38,65%	47,12%	52,88%
Domestic Services	71,79%	28,21%	74,01%	25,99%
Other Activities	61,00%	39,00%	12,21%	87,79%
Total	24,43%	75,57%	14,97%	85,03%

Source: PNADs and author's tabulation

Gender wage gap

- **Occupational segregation by gender**

- ➔ Concentration of women in occupations that are traditionally considered as female can be understood as the result of choices influenced by gender social norms and social influences, which can cause inequality of opportunity

- **Women work less hours than men**

- ➔ Women are usually responsible for domestic work and nonmarket care, which can result in less hours available for work and capability deprivation

Capability approach and feminist economics

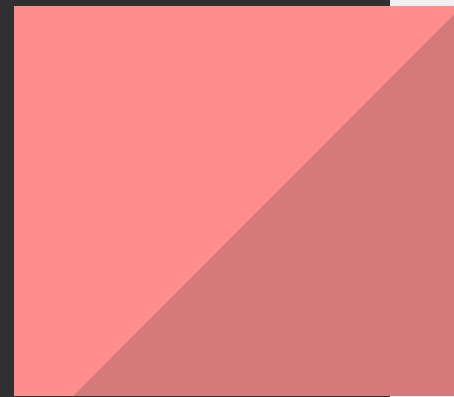
● Contributions

- ➔ Methodological plurality and complementarity
 - Capability approach: freedom and autonomy
 - Feminist Economics: impact of gender social norms
- ➔ **Central aspects of the gender wage gap: lack of autonomy and capability deprivation**

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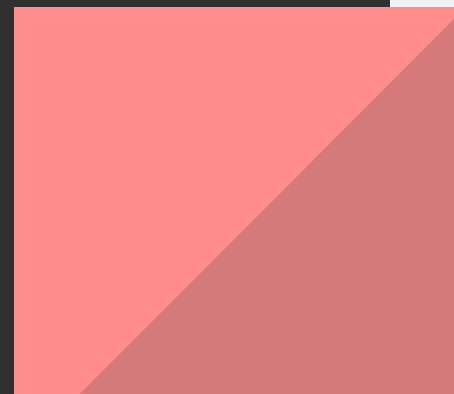
**THANK
YOU!**



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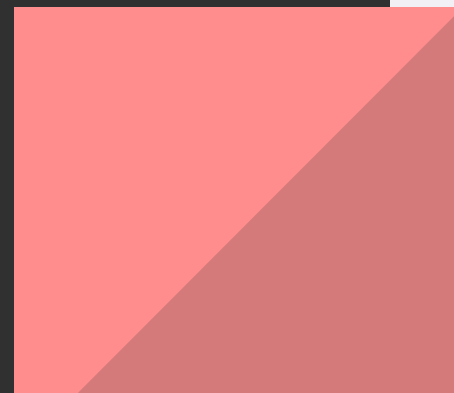
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