



Brazil: Gender and Race in the Labour Market Before and During the COVID-19 Crisis

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ABSTRACT

This paper addresses the worsening social and economic inequalities in the Brazilian labour market during the COVID-19 pandemic, based on a comparison with the previous economic context and considering intersections among gender, race and ethnicity, education and age. The pandemic amplified social and economic fragilities already observed in the labour market, increasing social insecurity for vulnerable groups. The paper discusses current and future human development in Brazil through the lens of gender and race, and with an intersectional perspective, focusing on black women.

The paper is built on the assumption that pandemic-differentiated effects among social groups have historical roots and are associated with structural racism in a patriarchal society, culminating in dramatic vulnerability for black women. In the pandemic, this group was even more neglected and excluded from conditions for human security, as verified in part by labour market movements during 2020 and the first quarter of 2021. The closure of schools, kindergartens and nurseries, which provide essential services and share educational and other duties with parents, had particular impacts on mothers. Women in general were most affected as they are disproportionately responsible for domestic work, including in caring for the sick, the elderly and children. Home office activities further contributed to an overload of domestic work for women. This became a particularly tragic situation for women who head households and are single parents, a group mainly comprising black women. It had an enormous impact on the availability of those women for paid work, increasing their dependency on income transfer policies. One of most dramatic outcomes of the pandemic was women's unavailability to work, expressed by their lack of conditions to work or to seek work.

In sum, this paper presents some consequences of the COVID-19 pandemic in terms of the labour market and economic crisis that explain widening social and economic disparities in Brazilian society and the explosion in the number of people facing human insecurity. The paper is organized in three sections. The first section presents a brief overview of the Brazilian labour market, highlighting some differences between a typical crisis and the pandemic. In section two, a focus on labour market data with age and education level cohorts shows the effects of the COVID-19 economic crisis on four social groups (white men, white women, black men and black women). Finally, the third section presents some policy recommendations and conclusions. An annex offers tables, figures and additional discussion to complement the analysis.

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Key findings

This paper addresses growing social and economic inequalities in the Brazilian labour market during the COVID-19 pandemic, based on a comparison with the previous economic context and considering intersections among gender, ethnicity, education and age. For this purpose, it accesses the data available from the Pesquisa Nacional por Amostra de Domicílios Contínua (Continuous PNAD, Continuous National Household Sample Survey), published by the Instituto Brasileiro de Geografia e Estatística (IBGE, Brazilian Institute of Geography and Statistics). Using this dataset, four social groups are set: black women, black men, white women and white men. These groups are then analysed considering their age cohorts (youth, adulthood and elderly) and levels of education (illiterate, elementary school, high school and higher education).

Considerable progress took place during the early 2000s regarding women's integration in the labour market, although their condition, mainly for black women, was still deeply precarious. They experienced higher informality, more part-time work, lower wages, less social protection and higher susceptibility to economic fluctuations. The pandemic amplified social and economic indicators already observed in the labour market, increasing inequalities and social insecurity for vulnerable groups. The main conclusions of this paper are as follows.

GENDER AND RACE IN THE LABOUR MARKET

In 2021, the Brazilian population was estimated at 212 million inhabitants split by black people (54.5 percent, with 45.9 percent self-declared as brown and 8.7 percent as black); white people (45.2 percent, with 44.4 percent self-declared as white and 0.7 percent as yellow); indigenous peoples (representing 0.3 percent of the total) and people with ethnicity not declared (0.03 percent of the total).

The black population is 54.2 percent of the labour force but this large share is mainly due to the enormous portion of unemployed black people (63.2 percent). They represent a large share in underemployment (64.2 percent) and labour underutilization (64.3 percent). Outside the labour force, they comprise a pronounced proportion of the potential labour force (65.7 percent), composed of unavailable jobseekers (61.1 percent) and discouraged jobseekers (69.8 percent).

Black workers are concentrated in smaller income ranges in all sectors. The great majority of people who earn up to the monthly minimum wage is black (70.5 percent up to half of the minimum wage and 63.9 percent between half and the full minimum wage). At higher incomes, the share of black people is highly reduced (21 percent between 10 and 20 times the minimum wage and 14.5 percent over 20 times).

Black workers are concentrated in labour-intensive sectors (58.8 percent in agriculture, 65.2 percent in domestic services and 64.3 percent in construction) and in sectors with lower average earnings.

Black people are the majority in all lower education levels (77.5 percent of those who are illiterate, 62.8 percent of those with incomplete elementary schooling, and 58.1 percent of those with complete elementary school) and intermediate levels (62.1 percent of those with incomplete high school and 56 percent of those with complete high school).

Analysis based on job formality reveals an uneven distribution, with penalties for women (their high participation in informal domestic work) and for the black population (higher informality in all major sectors).

At the intersection of gender and race, black women face the most fragile conditions. Black women, the biggest social group in Brazil, are 28.2 percent of the working-age population (black men are 25.8 percent, white women, 25 percent and white men, 21 percent) but only 23.7 percent of the labour force. Black women have a greater share of the potential labour force (39.1 percent), a category defined as those who would like to work or are seeking work but are unavailable or are discouraged by the adverse situation of the labour market.

In contrast, white men exhibit the opposite situation: greater participation in the labour force (24.5 percent) compared to their weight in the potential labour force (13.5 percent). This indicates that white men have more possibilities to work and seek work compared to black women.

White men have a high labour force participation rate (66.5 percent) and the lowest underemployment (4.7 percent), unemployment (9.9 percent) and underutilization rates (19.2 percent). The same rates for black women are a 47.7 percent labour participation rate, 12.6 percent underemployment rate, 21.4 percent unemployment rate and 42.1 percent underutilization rate.

Black women's underutilization rate at 42.1 percent is astonishing. It means that almost half of black women in Brazil are demanding work or more hours of work. This number suggests a dramatic situation not just for this huge contingent of women but for millions of children and other people who depend on these women. Black women are mainly responsible for 27.4 percent of households in Brazil.

Black and white women's high rates of inactivity stem from the sexual division of labour, where women's low participation in the labour market (productive labour) relates to an overload in domestic and care work (reproductive labour).

The average labour income in Brazil is very low: 2.3 times the minimum wage. Black women earn less than the Brazilian average remuneration in all categories of employment, except the military and others in the public sector (3 times the minimum wage, employing 13.2 percent of black women) and employers (3.3 times the minimum wage with just 1.8 percent of employed black women). Nevertheless, even though remuneration in some cases is above the Brazilian average labour income, it represents less than half the payments earned by white men in the same occupational positions.

Of all black women workers, 15.8 percent are domestic employees, most of them (74.7 percent) informally employed. Without being formally registered, they do not have access to the labour and social security system. Informal domestic occupations generate the worst remuneration. On average, an informal domestic worker earns 70 percent of the Brazilian minimum wage. This is the average earning of more than 2 million black women.

AGE, GENDER AND RACE

Black women have a very low share of the labour force among those aged 50 to 64 years (19.4 percent) and above 65 years (13 percent), relative to their share of the working-age population in those ranges (26.8 percent and 24.3 percent, respectively). In another extreme, exhibiting better conditions to sustain the capacity to work, white men are 23.3 percent of the working-age population and 39.9 percent of the labour force of people aged 65 and above.

A higher share of men (especially black men) participates in the labour market at younger ages relative to women, who face limitations from domestic duties. This is one reason why black women aged 14 to 18 represent 28.4 percent and those aged 19 to 24 represent 29.6 percent of the working-age population and just 24.1 percent and 26.1 percent of the labour force, respectively.

For all ages, black women's activity rates are lower than those of other groups but the distance between them and other groups (especially compared to white men) is greater between ages 25 and 64.

In the period of the highest potential capacity to work (25 to 49 years old), while black women's labour participation rate is around 65.6 percent, white men's is 89.3 percent. Black men's (86.3 percent) and white women's (74.5 percent) participation is also high. This indicates black women's elevated dependency on other people's income to ensure their own survival and that of their children.

Recognizing that black women's fullest potential to work occurs during a period of life with more responsibilities for children and the elderly could be a step towards tackling a major social problem. Low levels of employment associated with gender-related unpaid care duties can produce strong vulnerabilities not just among black women but those that depend on them. Risks of domestic violence and abuse can arise from dependency on a partner's income. This situation also opens space for children's labour.

Although they are the major population group, black women have the lowest share of total employment in all age ranges. At the same time, they are the only group whose share of underemployment across all age ranges is greater than in employment.

In the 25 to 29 age range, black women are 22.5 percent of the employed and 37.7 percent of the underemployed while white men are 23.8 percent and 13.1 percent, respectively. These numbers may reveal

that black women's work happens to the benefit of other groups. It also means that higher earnings are appropriated by other groups at the expense of black women's lower labour payments.

Black women have the highest rates of underemployment at all ranges, reaching the maximum value (24.5 percent) at ages 14 to 18. As a result of the immense degree of informality (illegality in most situations, in fact), the average payment at this age is 60 percent of the minimum wage. This is a great concern because this period in life should be preserved for studies. Almost 25 percent of black women at this age wish to work more hours than are already working, a discouraging scenario.

If their educational formation is damaged, underemployment rates at older ages tend to continue to be high while wages remain low. Across the whole life cycle, black women have underemployment rates greater than 10 percent, a level that falls only when they are 65 years old or more. In contrast, white men do not reach this level of underemployment rate in any age cohort. This situation drives very vulnerable and dramatic life conditions in the present and future of those teenagers, considering the impact on their mental and physical health, besides the educational deficit.

At an age that people should be retired (above 65 years old), around 3 million older people still work. Probably given better health conditions, white men are the majority of people working at this age (40.1 percent). This period shows the biggest difference between white men's income (4.4 times the minimum wage) and black women's (1.4 times the minimum wage).

In an economic crisis, many youth and older adults may begin to depend on the income of working-age people. Some may work to complement the household or extended family income.

EDUCATIONAL LEVEL, GENDER AND RACE

Black and white women have different education levels. Although educational improvements increase labour force participation and employment rates, this relationship varies for men and women because women maintain higher levels of inactivity compared to men, irrespective of education levels. The reasons seem to be different across groups of women as black women are more affected by worsening economic and other conditions in terms of accessing good jobs.

More black women are employed than non-employed only from the moment they enter university. Still, black women have the highest unemployment (11.7 percent) and underemployment (7.9 percent) rates among those with higher education.

Black men have a higher proportion of low education levels compared to their share in the black population. They are 25.3 percent of the population above 19 years old, 33.9 percent of the illiterate group and 29.9

percent of those with incomplete elementary schooling. They have very low participation in the group completing higher education (13.3 percent).

Black men have the highest activity rates irrespective of their education level. Indeed, the economic participation of black men is enormous, growing even higher with better education. Their extended labour force participation rate reaches around 85 percent with a high school degree and 90 percent with a university degree. Nevertheless, with low qualifications, low remuneration and with full-time work in heavy activities, their participation may mean fewer opportunities to improve their qualifications and attain higher education levels. A vicious cycle of worse jobs, low remuneration and low qualification sets in.

Domestic work declines in importance as women increase their education level. With complete higher education, military and other public service jobs are the main occupations for black women (36.1 percent).

Black women are 20.9 percent of workers with higher education degrees and 28.3 percent of those at this education level employed by the military and other public services. The relatively high importance of these occupational positions for black women is explained by a public sector hiring model based on blind examinations with less room for racial and sex prejudice or discrimination. The public service sector is very important for black women to obtain better jobs with good work conditions, remuneration and stability.

The biggest discrepancy between remuneration for black women and white men shows up in higher levels of education. Unfortunately, racism and sex discrimination threaten efforts by black women to gain equality in job conditions and pay by increasing their educational skills.

UNEVEN IMPACTS OF THE PANDEMIC

The 2020 economic recession in Brazil (a contraction of -3.9 percent in gross domestic product [GDP] growth) did not generate the same impacts on the labour market as other periods of intense economic regression. Elements in 2020 were quite different from those observed during the two years of recession in Brazil in 2015 (-3.3 percent GDP growth) and 2016 (-3.5 percent GDP growth).

In 2020, during the pandemic and economic crisis, various activities and sectors (especially wholesale and retail services) were shut down or partially shut down, leading to a mass dismissal and elimination of various occupations (such as those by self-employed people), especially informal ones. Occupations that in other crises functioned as a cushion to absorb workers who lost their jobs suffered great downturns too.

More impacted activities and sectors were those with a high percentage of informal jobs, including wholesale, accommodation and food services, domestic services and other services.

One affected sector was education, including schools, kindergartens and nurseries. These share educational and living duties with parents, especially mothers. Women in general were most affected as they are most responsible for all domestic work and caring for children as well as the sick and elderly.

Home office activities added to women's overload from domestic work. This had an enormous impact on the availability of women for paid work, increasing their social and economic vulnerability and dependency on income transfer policies. Efforts to look for jobs were suspended to undertake other activities.

One of most dramatic outcomes of the pandemic was women's unavailability to work, expressed by their remarkably high share of unavailable workers in the potential labour force and their lack of conditions to work (based on the elimination of their jobs due to the economic and health crises) or to seek work (illustrated by their high presence among discouraged jobseekers).

The unavailable jobseekers' category is traditionally composed mostly of women (66 percent), explained by the fact that they carry the main responsibility for their dependents (children, the elderly, sick people and those who need special attention) and for almost all domestic work. The hours and mental and physical efforts spent on these non-paid activities decrease or hinder their availability for paid activities.

This is a particularly tragic situation for women householders. In 2020, the year that schools, kindergartens, and child and elderly care institutions were shut down, women had less availability to work, increasing their social and economic vulnerability and dependency on income transfer policies.

There was a contraction of almost 9 million people in the labour force. This impact was stronger for black men (-6.6 percent) and black women (-6.4 percent) than for white women (-2 percent) and white men (-1.4 percent).

The deep contraction of black women in the labour force led to the lowest participation rate compared to the three other groups in all age cohorts (18.2 percent among black female youth, 58.1 percent among black women adults, 6.5 percent among elderly black women and 47.7 percent among all black women). The same rates for white men were 23.7 percent among youth, 82.2 percent among adults, 20.6 percent among the elderly and 66.5 percent for all white men.

The loss of employment between 2020 and 2021 was very severe (-6.5 million jobs) and impacted more black people (-4.8 million jobs) than white people (-1.7 million jobs).

For the first time in the Continuous PNAD, the rate of employment in Brazil fell under 50 percent. There were more working-age people who were not working than working. Black women's level of employment fell to 37.5 percent, which was mainly responsible for such low employment overall.

For black women, considering the workforce sectors where they are concentrated, one can see a significant loss in informal employment in the following sectors: domestic services (-18.2 percent), wholesale and retail services (-20.4 percent), and education, human health and social work services (-22 percent).

Black women's occupations are concentrated in three sectors: education, human health and social work services, 21.7 percent; wholesale and retail services, 18.3 percent; and domestic services, 15.9 percent. Considering only sectors with importance higher than 10 percent for each of the four social groups analysed here, domestic services is a main employment sector only for black women.

The State emergency aid programme only partially protected people from needing to work or to work more hours. Its insufficiency was evident in the labour underutilization rate, which reached, in the first quarter of 2021, a record level of 29.7 percent (36.5 percent for black women) of the extended labour force.

Although employment was significantly curtailed in the one-year period from the first quarter of 2020 to the first quarter of 2021 (-7.1 percent), the same did not happen to underemployment. With paralysed and idle economic activities, more workers demonstrated their wish to work more hours than they were already working. The number of people underemployed rose by 8.9 percent.

Among the four social groups, black women had the highest underemployment rate in 2020 (10.5 percent) and exhibited the biggest rise (12.6 percent in 2021), almost three times the rate for white men (4.7 percent in 2021). Overall, black women youth had the highest underemployment rate (24.5 percent) and the largest difference compared to the rate for white men (9.1 percent).

While a higher education level lowers the underutilization rate, this is felt differently across social groups. At all education levels, the distance between the underemployment rates for black women and white men increased.

A drastic reduction in employment affected most of the black population (especially black women) with lower education levels (with elementary schooling, for example, a decrease of 15.7 percent for black people and 19.8 percent for black women was observed). All groups of people with higher education saw positive growth, except black women (-0.4 percent).

By age cohort, employment reduction most affected young people (14 to 18 years old), but black women had the worst variation in all cohorts: -28.6 percent among black women youth, -10.2 percent among working-age black women and -22.1 percent among older black women. For Brazil at large, the variations were, respectively, -18.3 percent, -6.9 percent and -5.8 percent.

Unemployment rates changed little for white men as education level increased. Yet in 2021, the unemployment rate for illiterate black women was half of those with elementary schooling (10.1 percent and 20.1 percent,

respectively) and almost the same as those with higher education (9.4 percent). That is, progress in education was not an efficient tool to reduce unemployment, especially for black women.

For black women, unemployment rates reached remarkably high levels across all age cohorts: almost 60 percent of black women youth in the labour force were looking persistently for a job; one in five adult black women in the labour force (20.4 percent) was not working and was continuously looking for a job. This rate was two times higher than white men's in the same age (9.4 percent). Overall, the unemployment rate difference between black women and white men grew in 2020.

Unavailability was an important characteristic of the pandemic period, illustrated by the high positive variations in groups with higher education degrees, mainly black women (increase of 75.3 percent) and white men (114.8 percent). Even some of the best conditions to seek a job or remain employed were not enough to prevent unavailability.

Due to different impacts on social groups from higher unemployment and underemployment, especially for black women, the difference between the underutilization rates for white men and black women broadened during 2020.

In sum, this paper presents some consequences of the labour market during the COVID-19 pandemic and economic crisis that explain widening social and economic disparities in Brazilian society and the explosion in the number of people facing human insecurity.

Introduction

The COVID-19 pandemic created a global humanitarian crisis. The spread of the virus and the health effects of the disease resulted in millions of deaths and exposed the limitations of national health and social security systems in confronting the pandemic, causing social and economic damages. This situation entailed restrictions on schooling, the closure of many economic activities, unemployment and higher rates of domestic violence. Expanding social inequality in all countries,¹ especially low- and middle-low-income ones, made it difficult to maintain the social and economic achievements of recent decades, distancing them from the 2030 Agenda for Sustainable Development and the principles of human security.² Growing social and economic polarization related to gender and race has been among the most prominent consequences.

According to the World Economic Forum (2020), women were hit more strongly than men by the COVID-19 crisis, increasing previous gender inequalities. Before COVID-19, the labour market for women, despite considerable progress in the last two decades, was more precarious than for men. It presented higher informality, more incidences of part-time work, lower wages, less social protection and higher susceptibility to economic fluctuations. Poor access to health and educational systems and low labour force participation are among the components captured by the Gender Inequalities Index and Gender Development Index, which exposed significant inequalities by gender and among countries in 2019.³

When adding these characteristics to the pandemic-driven demand for more care work,⁴ especially related to children, the elderly and work at home, and more violence and domestic violence against women,⁵ conditions for women in labour markets became even more unfavourable. Further, most work in hospitals related to nursing and patient care is the responsibility of women, who were especially exposed to COVID-19.⁶

Gender and race are central themes in the human development agenda because inequalities related to these dimensions remain widespread worldwide. Historically, Brazilian society was forged through the genocide of native peoples and a system of slavery that was profoundly patriarchal.⁷ Violence and discrimination against women, mainly black and indigenous women, have been perpetrated for centuries. Brazil received 4.8 million enslaved people or 46 percent of all people trafficked in the slave trade in the Atlantic from the sixteenth to

¹ UNDP 2020.

² CeSI 2021.

³ UNDP 2020.

⁴ UNDP Latin America and the Caribbean 2020.

⁵ UN Women 2020.

⁶ UNDP Latin America and the Caribbean 2020.

⁷ Gonzalez 2020.

the nineteenth century.⁸ Brazil was the last country to abolish slavery in the Americas. Inequalities from gender and race are historically rooted in Brazil and still generate atrocious repercussions for Brazilian society.

Despite enormous structural inequalities in Brazil, between 2002 and 2014, the social and economic situation improved due to economic growth (3.5 percent GDP growth on average per year), the expansion of social programmes and the increased monthly minimum wage. Yet after 2014, Brazil faced a profound economic crisis, showing a 0.6 percent GDP decline, on average per year, until 2020. The country was then hit by the COVID-19 pandemic and a recession of -3.9 percent in 2020, deepening social and economic regression. Brazil's GDP value in 2021 is almost the same as it was in 2010; its income per capita is the same as it was in 2009; and the country lost five positions on the Human Development Index.⁹ Brazil's economy has regressed over more than 10 years, threatening the future for children and youth. Beyond its social and economic problems, the country has lost more than 658,000 lives to COVID-19.¹⁰

COVID-19 strongly affected the black population. A study from the Brazilian Association of Collective Health showed that deaths associated with respiratory diseases, including COVID-19, have increased 28 percent among black people and 18 percent among white people since the beginning of the pandemic.¹¹ Black people are more susceptible to getting COVID-19 in prisons, since they are 66 percent¹² of the prison population, indicating distortions in the Brazilian penal system.

Brazil's enormous wave of COVID-19 cases required emergency measures to prevent a humanitarian tragedy.¹³ Social isolation and the closure of schools and commercial activities were the first steps, although they were not homogeneous across the country. To minimize the social impact of health measures, a set of bold policies and programmes was carried out. These included the emergency aid programme (benefiting almost 70 million people¹⁴), support to small and medium enterprises by facilitating loans, and flexible employment rules

⁸ Eltis 2010.

⁹ UNDP Brazil 2020.

¹⁰ Brazil had lost, as of 26 March 2022, 658,762 lives to COVID-19—a rate of 313.5 per 100,000 inhabitants. The rate varied significantly among regions: 385.6 in the midwest, 356.2 in the south-east, 270.2 in the north, 345.4 in the south and 223.9 in the north-east. See: <https://covid.saude.gov.br>, accessed on 27 March 2022.

¹¹ Lopes and Xavier 2021.

¹² Anuário brasileiro de segurança pública 2020.

¹³ Fares et al. 2021 advocate that although the emergency aid programme did not have a necessary and special focus on known vulnerable groups, which would demand a programme with a gender and race approach, it was essential in preventing a significant elevation in poverty and extreme poverty in Brazil during 2020. With the reduction of monetary values offered in the programme in 2021 and with fewer people benefiting from aid, these authors projected a huge increase in poverty and extreme poverty in Brazil, affecting mainly black women. See also Nassif-Pires, Cardoso and Oliveira 2021.

¹⁴ The emergency aid programme paid five installments of \$109.10 between April and August of 2020, and four installments of \$54.50 between September and December of 2020. Mothers and householders received twice those values (FGV-IBRE 2020).

allowing the temporary suspension of formal contracts to minimize damage to employees and enterprises. These measures together cost \$156.8 billion (11.4 percent of GDP¹⁵).

They had substantial effects on abilities to maintain health and work but with notable differences across the four social groups studied in this paper: black women, black men, white women and white men. One of the hypotheses of this paper is that those differentiated effects have historical roots and are associated with structural racism in a patriarchal society, culminating in dramatic vulnerability mainly for black women. In the pandemic, vulnerable groups were even more neglected and excluded from conditions for human security, as verified in part by labour market movements during 2020 and the first quarter of 2021.

This paper aims to analyse, alongside the intersection between gender and race inequalities, a huge structural problem that, in the context of the COVID-19 pandemic, became worse during 2020 and the beginning of 2021. It discusses current and future human development in Brazil through the lens of gender and race, and with an intersectional perspective, focusing on black women in particular.

The paper is organized into three sections, besides this introduction. The first section presents a brief overview of the Brazilian labour market, highlighting some differences between a typical crisis period and the pandemic crisis. In section two, a consideration of labour market data with age and education level cohorts shows the effects of the COVID-19 economic crisis on the four social groups. Finally, section three presents some policy recommendations and conclusions. An annex offers tables, figures and additional discussion to complement the analysis.

The pandemic crisis and the 2015–2016 recession in Brazil: some differences

The 2020 economic recession in Brazil (-3.9 percent GDP growth) generated different impacts on the labour market compared to 2015 and 2016, another period of intense economic regression (-3.3 percent GDP growth in 2015 and -3.5 percent in 2016). The conjunction of a fragile economic scenario before 2020 with the fight against the COVID-19 pandemic engendered singular features in Brazilians' economic activity and work conditions. The 2015-2016 biennium was chosen as a period to compare with 2020 because it defines the context in which the COVID-19 pandemic unfolded and also due to the strength of its economic contraction, which spawned substantial changes in the Brazilian labour market. The comparison of both periods shows how the pandemic generated unique and even more severe impacts on conditions to work.

¹⁵ World Bank 2020.

In 2015-2016, the labour force¹⁶ increased (0.4 percent¹⁷ each quarter on average) because of the steep elevation of unemployment (8.5 percent each quarter on average), which offset the reduction of employment (-0.3 percent each quarter on average). In those two years, the increment of the labour force participation rate was mainly defined by the increase in people seeking jobs.

Unemployment was alleviated by the expansion of underemployment (1.4 percent each quarter on average), a category that comprises people who work (excluding them from the unemployment category) but are still seeking more working hours. In the following three years (2017, 2018 and 2019), facing a low GDP growth rate (1.1 percent on average each year), underemployment kept rising (2.2 percent at each quarter on average).

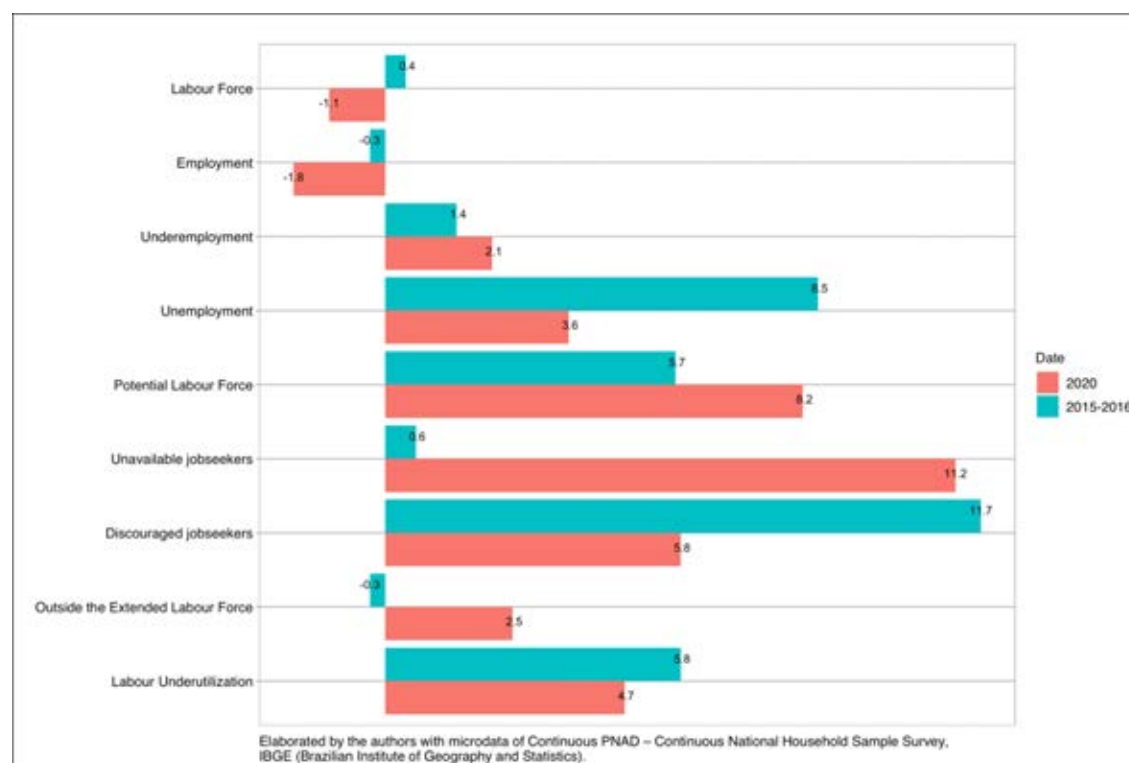
During this period, the number of economically inactive people who were discouraged jobseekers increased significantly (11.7 percent on average, each quarter). While not considered in the unemployment rate because they do not seek jobs, discouraged jobseekers have similar vulnerabilities to unemployed persons because they want and need to work. The other category of the potential labour force (unavailable jobseekers) had only a slight increase (0.6 percent).

Thus, in those two years of recession, the Brazilian underutilization rate was highly impacted by its three elements: unemployment, time-related underemployment and discouraged jobseekers in the potential labour force (Figure 1).

¹⁶ All definitions of labour force categories are in the Annex to this paper.

¹⁷ Growth rate data on this biennium period were calculated by a geometric variation between the last quarter of 2014 and the last quarter of 2016 so one can observe the quarterly growth on average during this period.

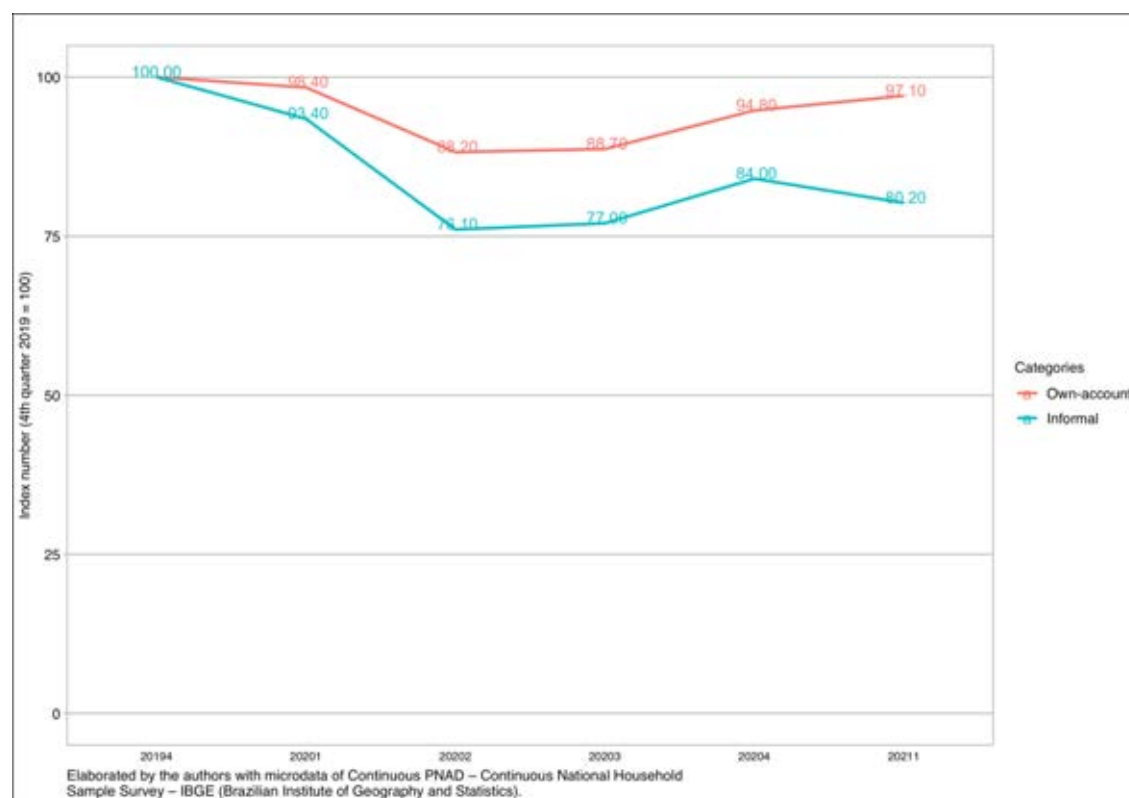
Figure 1: Working-age population, categories, average quarterly growth rate (percentage), 2015-2016 and 2020



In 2020, during the pandemic-related economic crisis, the labour market exhibited quite distinctive features. In the second quarter of 2020, various activities (especially wholesale and retail services) were shut down totally or partially, which led to the mass dismissal and elimination of various occupations (including for self-employed people), such as in the accommodation and food services sector. Figure 2 shows the number of informal and own-account workers¹⁸ substantially decreased in the second quarter of 2020. Until the end of that year, the number was the same level observed one year before. This movement occurred because sectors more impacted in 2020 were those with a high percentage of informal jobs, such as wholesale, accommodation and food services, domestic services and other services.

¹⁸ Informal and own-account workers were, respectively, 41.9 percent and 27.8 percent of employed people in the first quarter of 2021.

Figure 2: Informal employment and own-account workers from the fourth quarter of 2019 to the first quarter of 2021 (fourth quarter of 2019 = 100)



Note: In this figure, informal employment includes informal private sector employees, informal public sector employees and informal domestic workers.

The main effect on the labour market was high employment contraction (-1.8 percent each quarter on average), leading to a substantial decrease in the labour force (-1.1 percent each quarter on average). This last movement is extraordinary as the contraction in the number of people employed is usually offset by the elevation in underemployment or unemployment, as observed during the 2015 and 2016 recession. In 2020, unemployment increased (3.6 percent each quarter on average) but a considerable number of people were not considered unemployed as a result of the enormous curtailment of work vacancies and jobs, especially informal ones, and due to their unavailability to seek jobs. Efforts to look for jobs were mostly suspended with the impossibility of undertaking some activities that normally complement or substitute for unemployment (although most involve adverse conditions with low pay). Therefore, the main impact of employment reduction was the augmentation of the potential labour force (8.2 percent each quarter on average). Within the potential labour force category, the main contribution to this huge elevation was the increase in unavailable jobseekers (11.2 percent each quarter on average), more than discouraged jobseekers (5.8 percent).

The unavailable jobseekers' category traditionally comprises most women (66 percent on average), as they are mainly responsible for their dependents and almost all domestic work. The hours and the mental and physical efforts spent on these non-paid activities hinder their availability for paid work. Despite their willingness and need to work, they are unavailable for it.

Essential education services shut down, including schools, kindergartens and nurseries, affecting parents, especially mothers, since these facilities share educational and other duties. Overall, women in general were most affected by constraints on essential services as they are the most responsible for domestic work, including caring for the sick, the elderly and children. Home office activities further contributed to an overload of domestic work for women. This is a particularly tragic situation for women who head households and are single parents.

The strong increase in the potential labour force indicates that the State financial emergency aid programme was just partially efficient in supporting and protecting people, considering their expressed need and willingness to work or to work more hours.

Notwithstanding, a portion of people who left the labour force was totally inactive. Although they were in the working-age cohort, they did not work or seek work. The number of people outside the extended labour force category rose 2.5 percent each quarter on average.¹⁹ For those people, the State emergency aid programme seemed to be effective.

For many Brazilians, however, emergency aid was not sufficient to remove them from precarious jobs or situations that put them in unemployment or the potential labour force. The labour underutilization category (involving those who are unemployed, in time-related underemployment and the potential labour force) expanded sharply in 2020 (4.7 percent each quarter on average). Increasing unemployment and the potential labour force (especially the growth in unavailable jobseekers) were the main factors behind this. As observed in 2015 and 2016, informal occupations or underemployment eased the increase of those categories.

In the first quarter of 2021, the labour underutilization rate reached a record level: 29.7 percent of the extended labour force. Almost one third of people could not fulfil their potential or need to work. This dramatic context worsens when one analyses work or need-to-work situations by sex and race, the focus of the next section.

¹⁹ The growth in this category (people outside the extended labour force) is not usual during crises. During the 2015 to 2016 biennium, the number of people in this category fell by 0.3 percent each quarter on average.

The pandemic and its differentiated effects on social groups observed by race and gender

The pandemic's health and economic crises imposed striking effects on the Brazilian labour market. These were felt in different intensities among and within social groups. This section considers these differences on black women, black men, white women and white men between the first quarter of 2020 and the first quarter of 2021.

The consequences of COVID-19 started to substantially affect the labour market only in the second quarter of 2020. Therefore, data from the first quarter of that year reflect the economic context just before the beginning of the pandemic fallout. By comparing these data with the first quarter of 2021, it is possible to evaluate the economic crisis after one year.

EFFECTS ON SECTORS BY SEX AND RACE

The loss of employment between 2020 and 2021 was very severe (-6.5 million jobs) and impacted more black people (-4.8 million jobs) than white people (-1.7 million jobs). This loss was concentrated in five sectors in which the black population is most employed (wholesale and retail services, -1.6 million jobs, 54.1 percent black people; accommodation and food services, -1.4 million jobs, 59.4 percent black people; domestic services, -1 million jobs, 65.5 percent black people; other services, -920,000 jobs, 54.3 percent black people; and industry, -911,000 jobs, 50.4 percent black people). Except for agriculture, education, human health and social work services and undefined activities, all other sectors presented a negative balance (Table 1).

Table 1: Employment by sectors, absolute difference (thousands), first quarter of 2020 compared to the first quarter of 2021

	Total			Black			White		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
Agriculture	-12.2	347.0	334.8	-55.8	-10.4	-66.2	43.7	357.4	401.0
Industry	-702.8	-208.6	-911.4	-318.4	-189.7	-508.1	-384.4	-18.9	-403.3
Construction	-106.4	-255.8	-362.3	-89.2	-201.1	-290.3	-17.2	-54.7	-71.9
Wholesale and retail services	-990.3	-646.6	-1,636.9	-582.4	-493.0	-1,075.4	-407.9	-153.6	-561.5
Transport	-298.2	-239.6	-537.9	-171.0	-165.8	-336.8	-127.3	-73.8	-201.1
Accommodation and food services	-787.2	-596.8	-1,384.0	-457.9	-438.0	-895.8	-329.3	-158.9	-488.2
Information, Real estate and support services activities	-189.5	151.5	-38.0	-253.1	-36.5	-289.6	63.6	188.0	251.6
Public administration	14.1	-160.6	-146.6	-28.4	-96.5	-125.0	42.5	-64.1	-21.6
Education, human health, and social work services	442.9	-360.2	82.7	168.5	-280.1	-111.6	274.4	-80.1	194.3
Other services	-377.3	-542.9	-920.2	-151.0	-320.7	-471.7	-226.3	-222.2	-448.5
Domestic services	-292.5	-737.6	-1,030.1	-164.6	-529.8	-694.4	-127.9	-207.8	-335.7
Undefined activities	14.5	9.7	24.2	8.3	4.5	12.7	6.3	5.3	11.5
Total	-3,284.9	-3,240.6	-6,525.5	-2,095.1	-2,757.1	-4,852.2	-1,189.9	-483.4	-1,673.3

Source: Elaborated by the authors based on the Continuous PNAD.

It may seem surprising that formality increased in women's employment (for black women, it increased from 52.1 to 54.4 percent, and for white women, from 64.5 to 65.5 percent). This occurred because informal occupations dropped off more than formal ones. In black women's situation, considering the sectors with high shares of this group, one can see a significant loss in informal employment in domestic services (-18.2 percent), wholesale and retail services (-20.4 percent), and education, human health and social work services (-22 percent). For white women, the loss in informal employment was also bigger than the formal one but lower than it was for black women. White women saw an increase in informal jobs in information, real estate and support services activities (13 percent) and a lower reduction in important sectors such as wholesale and retail

services (-10.2 percent), domestic services (-15.3 percent), and education, human health, and social work services (-14 percent). See Table 2.

Table 2: Formal and informal employment for black people by sector and sex, first quarter of 2020 versus the first quarter of 2021, formality ratio and variation (percentage)

	Black Women				Black Men			
	Formality	Formality	Formal	Informal	Formality	Formality	Formal	Informal
	ratio	ratio			ratio	ratio		
	2020	2021	Var (%)	Var (%)	2020	2021	Var (%)	Var (%)
Agriculture	14.5	13.3	-0.4	10.1	20.6	20.0	-6.4	-2.6
Industry	53.0	52.8	-7.5	-6.5	73.8	74.7	-8.2	-12.4
Construction	67.6	78.4	40.2	-19.6	25.7	24.8	-11.1	-6.5
Wholesale and retail services	55.4	58.3	-10.3	-20.4	58.5	57.0	-11.2	-5.8
Transport	69.9	69.0	-23.0	-19.6	46.8	46.8	-11.7	-11.8
Accommodation and food services	41.5	35.7	-35.8	-17.7	42.8	42.6	-32.7	-32.0
Information, Real estate and support services activities	80.1	79.6	-3.0	0.0	74.7	73.7	-9.8	-5.0
Public administration	69.0	73.1	-3.4	-21.1	78.6	80.3	-0.5	-9.9
Education, human health, and social work services	75.3	80.3	4.2	-22.0	77.1	80.8	3.5	-17.0
Other services	29.7	29.7	-19.4	-19.3	37.4	37.7	-14.7	-15.9
Domestic services	25.0	25.1	-17.8	-18.2	41.4	45.9	-3.1	-19.4
Undefined activities	32.7	36.2	176.5	137.1	16.5	43.1	311.7	7.4
Total		54.4	-7.0	-15.3		51.3	-9.0	-8.7

Source: Elaborated by the authors with microdata of the Continuous PNAD.

For black men, the negative variation in formal occupations was the same as the informal ones (-9 percent and -8.7 percent). The negative result was seen in almost all sectors, but the intensity was lower than for black women, for example, in wholesale and retail services (-5.8 percent), construction (-6.5 percent), information, real estate and support services activities (-5 percent), and agriculture (-2.6 percent).

For white men, the formality ratio decreased (from 64.7 to 63.3 percent) because informal occupations had a positive variation (0.6 percent), and the formal ones a negative variation (-5.1 percent). Contributing to this positive result in informal jobs were agriculture (12.7 percent), industry (4.2 percent), information, real estate and support services activities (13.2 percent), and education, human health and social work services (17.8

percent). In formal occupations, strong contributions came from the education, human health and social work services sector (7.9 percent, the highest growth of this category among the four groups), construction (0.8 percent) and agriculture (4.2 percent).

EFFECTS ON LABOUR MARKET CATEGORIES OF GENDER AND RACE, BY AGE AND EDUCATION LEVEL

Besides sex and racial dimensions, the analysis considered labour market movements differentiated by age and education level. For age, it referred to three cohorts: youth (aged 14 to 18 years old), adults (19 to 64 years old) and elderly people (65 years old or more). For education, it applied four categories: illiterate, elementary school (incomplete and complete), high school (incomplete and complete) and higher education (incomplete and complete). The four education categories capture only people above age 19 since they are old enough to at least complete high school.

One of the main movements in the Brazilian labour market in 2020 was the great reduction in the labour force, especially in the second quarter with a contraction of almost 9 million people. Until the first quarter of 2021, this reduction was not yet eliminated, with 4 million fewer people in the labour force (-4.4 percent). This impact was stronger among black men (-6.6 percent) and black women (-6.4 percent) than on white women (-2 percent) and white men (-1.4 percent). By age cohorts, the main impact on youth was seen on black women (-23.9 percent); for adults, on black men (-6.1 percent); and for the elderly, on black women (-21.2 percent). In the elderly cohort, white people's labour force participation increased (2 percent) among both women (0.5 percent) and men (2.8 percent). See Table 3.

Table 3: Labour force by age cohorts and sex and race, first quarter of 2020 versus the first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
14 to 18	-14.7	-17.8	-9.5	-23.9	-13.2	-6.9	-11.5
19 to 64	-3.9	-5.7	-1.6	-5.3	-6.1	-1.9	-1.3
65 or more	-5.6	-15.0	2.0	-21.2	-11.7	0.5	2.8
Total	-4.4	-6.5	-1.7	-6.4	-6.6	-2.0	-1.4

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The sharp reduction in the labour force was reflected in changes in the participation rate (Table 4). This rate decreased for all groups (in total, from 61 to 56.8 percent), for all age cohorts, and for the two sexes and racial groups. Black women's deep contraction (Table 5) led to the lowest rate compared to the three other groups

in all age cohorts (18.2 percent among black women youth, 58.1 percent among black women adults, 6.5 percent among elderly black women and 47.7 percent among all black women).

White women's participation rates were a little higher than black women's rates. Both were distant from rates for black and white men, two groups with high participation rates even considering the reduction in the labour force during 2020. In the adult cohort, white men's rate was 85.4 percent in 2020 and 82.2 percent in 2021, more than 20 percentage points higher than women's rate. Almost the same difference appeared in the elderly cohort: 20.6 percent for white men, 7.2 percent for white women and 6.5 percent for black women.

Table 4: Labour force participation rate (percentage) by age cohorts and race, first quarter of 2020 and first quarter of 2021

	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
14 to 18	25.1	21.5	25.4	21.7	24.6	21.3
19 to 64	73.4	70.1	71.7	68.9	75.8	71.6
65 or more	14.8	12.0	14.2	11.0	15.4	12.8
Total	61.0	56.8	60.4	57.0	61.7	56.6

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 5: Labour force participation rate (percentage) by age cohorts and by sex and race, first quarter of 2020 and first quarter of 2021

	Black women		Black men		White women		White men	
	2020	2021	2020	2021	2020	2021	2020	2021
14 to 18	22.5	18.2	28.1	24.8	21.1	18.9	28.1	23.7
19 to 64	61.1	58.1	82.8	80.8	67.3	62.6	85.4	82.2
65 or more	8.9	6.5	20.7	16.7	8.9	7.2	24.4	20.6
Total	51.0	47.7	70.4	67.1	53.4	48.2	71.4	66.5

Source: Elaborated by the authors with microdata of the Continuous PNAD.

A glance at education levels (Table 6) indicates that aggregate participation rates for the four social groups were higher according to education level (in 2021, 20.2 percent for the illiterate group, 46.5 percent for those with elementary schooling, 69.3 percent for those with high schooling and 75.5 percent for higher education cohorts). The participation rate fell in 2021 across all educational grades due to negative variations in the labour force between 2020 and 2021.

Table 6: Labour force participation rate (percentage) by education level and race, first quarter of 2020 and first quarter of 2021

	Total		Black people		White people	
	2020	2021	2020	2021	2020	2021
Illiterate	23.1	20.2	24.5	22.7	19.4	14.4
Elementary school	51.9	46.5	54.6	49.9	47.8	41.8
High school	74.3	69.3	75.4	71.2	72.7	66.9
Higher education	79.5	75.5	80.4	77.9	78.9	74.0
Total	64.5	60.1	64.3	60.7	64.8	59.5

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 7: Labour force participation rate (percentage) by education level, sex and race, first quarter of 2020 and first quarter of 2021

	Black Women		Black Men		White Women		White Men	
	2020	2021	2020	2021	2020	2021	2020	2021
Illiterate	12.5	11.9	36.5	34.0	10.2	8.1	31.2	23.2
Elementary school	38.9	34.3	69.6	65.3	33.8	28.1	63.2	57.7
High school	65.5	61.0	86.3	82.7	62.8	55.9	84.0	79.4
Higher education	82.0	77.5	85.2	83.9	75.0	70.3	83.9	79.1
Total	55.7	52.0	75.4	72.2	55.9	50.4	75.3	70.5

Source: Elaborated by the authors with microdata of the Continuous PNAD.

In the illiterate cohort, the reduction in white men's labour force participation (Table 8) was the most significant (-18.8 percent). In the elementary school cohort, black women were most affected (-14.6 percent). People in the labour force with higher education saw a positive variation during this period. This shows that higher education had a preeminent role in maintaining people's economic activity, even in a deep economic crisis. Notwithstanding, this was not sufficient to sustain the same participation rate for this group as in 2020.

Table 8: Labour force participation by education level, sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
Illiterate	-9.6	-7.9	-15.3	-3.2	-9.5	-7.0	-18.8
Elementary school	-11.3	-12.9	-8.4	-14.6	-12.0	-10.5	-7.2
High school	-4.6	-5.5	-3.2	-5.6	-5.4	-6.0	-0.9
Higher education	5.0	5.2	5.0	1.7	7.1	5.2	4.6
Total	-4.0	-6.0	-1.5	-5.7	-6.3	-1.9	-1.1

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The role of a higher education degree can be seen in employment variation during the period (Table 9). This education level was the only one with a positive percentage for all groups, except for black women (-0.4 percent). A drastic reduction in employment affected most of the black population (especially black women) with lower education levels (with elementary schooling, for example, a decrease of 15.7 percent for black people and 19.8 percent for black women was observed).

Table 9: Employment by education level, sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
Illiterate	-9.7	-7.1	-17.8	-4.3	-8.1	-11.5	-20.6
Elementary school	-13.6	-15.7	-10.0	-19.8	-13.6	-13.9	-7.8
High school	-8.4	-10.1	-6.1	-11.9	-8.7	-9.2	-3.7
Higher education	2.5	2.2	2.7	-0.4	4.2	2.4	3.0
Total	-6.8	-9.5	-3.7	-10.0	-8.7	-4.8	-2.8

Source: Elaborated by the authors with microdata of the Continuous PNAD.

A drastic contraction in black women's employment can also be seen through age cohorts (Table 10). There was a negative variation of 28.6 percent among black women youth, 10.2 percent among black women adults and 22.1 percent among older black women.

Table 10: Employment by age cohorts and by sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
14 to 18	-18.3	-20.3	-15.0	-28.6	-15.8	-17.4	-13.6
19 to 64	-6.9	-9.2	-4.0	-10.2	-8.5	-5.0	-3.2
65 or more	-5.8	-15.7	2.4	-22.1	-12.3	1.0	3.0
Total	-7.1	-9.7	-4.0	-10.9	-8.9	-5.0	-3.1

Source: Elaborated by the authors with microdata of the Continuous PNAD.

This reduction strongly impacted Brazilian employment. It was the first time in the Continuous PNAD that this indicator fell below 50 percent (Table 11). It means that more working-age people were not working than were working. As shown in Table 12, black women's level of employment declined to 37.5 percent; it was mainly responsible for the low overall level of employment. White women's level of employment was also very low: 47.4 percent in 2020 and 41.5 percent in 2021. The only group in the adult cohort (19 to 64 years old) with employment below 50 percent was black women (46.3 percent). The difference with white men's level of employment in this age range (74.5 percent) was almost 30 percentage points. The distance between the level

of employment for older white men and women was also striking. While older white men's index was 20 percent in 2021, white women's was 7.1 percent and black women's was 6.2 percent. These figures may illustrate white men's better work conditions throughout life and better situation to work in older ages.

Table 11: Level of employment (percentage) by age cohorts and by race, first quarter of 2020 and first quarter of 2021

	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
14 to 18	14.0	11.5	13.8	11.4	14.4	11.7
19 to 64	65.2	60.3	62.3	57.7	69.0	63.6
65 or more	14.3	11.6	13.7	10.6	14.9	12.4
Total	53.5	48.4	51.8	47.2	55.7	49.9

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 12: Level of employment (percentage) by age cohorts and by sex and race, first quarter of 2020 and first quarter of 2021

	Black women		Black men		White women		White men	
	2020	2021	2020	2021	2020	2021	2020	2021
14 to 18	10.1	7.7	17.2	14.7	11.0	8.7	17.7	14.6
19 to 64	51.3	46.3	73.9	70.2	60.3	54.3	78.8	74.5
65 or more	8.7	6.2	19.9	15.9	8.6	7.1	23.6	20.0
Total	42.2	37.5	62.1	57.7	47.4	41.5	65.3	59.9

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Although employment was significantly curtailed in this one-year period (-7.1 percent), the same did not happen to underemployment (Table 13). With many paralysed and idle economic activities, more workers demonstrated their wish to work more hours than they were already working. The share of underemployed people rose (8.9 percent) in all social groups, with more strength in the white population (15.4 percent) than the black one (5.5 percent). To a great extent, this was due to an increase in white adult cohort underemployment (17.6 percent) and to white workers in high school (27.5 percent, see Table 14).

Table 13: Underemployment by age cohorts and by sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
14 to 18	-13.2	-12.2	-15.6	-7.1	-15.2	-1.0	-25.7
19 to 64	10.9	7.5	17.6	8.3	6.7	17.5	17.8
65 or more	-21.6	-35.0	-5.3	-40.5	-30.1	19.2	-23.5
Total	8.9	5.5	15.4	6.7	4.2	17.0	13.2

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 14: Underemployment by education level, sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
Illiterate	12.0	9.8	23.0	32.2	1.1	36.8	16.1
Elementary school	0.4	-3.6	11.8	-7.4	-0.4	5.4	18.9
High school	18.7	14.5	27.5	15.0	13.9	30.6	22.5
Higher education	13.2	16.5	10.5	8.9	13.2	13.7	4.9
Total	10.0	6.5	16.8	5.4	5.8	17.6	15.7

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The precariousness of current jobs meant the crisis impinged on social groups that are usually more protected in economic downturns. Besides the large effects on already vulnerable and fragile groups, it generated a 'new vulnerable' group on some indicators (the same will be shown in unemployment indicators).

Nevertheless, the black population still presented a much higher underemployment rate (10 percent, Table 15) and unemployment rates (17.2 percent, Table 21) relative to the white population (respectively, 6.2 percent and 11.8 percent in 2021).

The underemployment rate (the ratio between underemployment and employment) climbed in all groups and age cohorts. Black women had the highest rate in 2020 (10.5 percent) and exhibited the biggest increase (to

12.6 percent in 2021); their rate was almost three times that of white men (4.7 percent in 2021). White men's underemployment rate had the lowest increase compared to other groups. Black women youth had the highest rate (24.5 percent) and the largest difference compared to white men's rate (9.1 percent or 15.4 percentage points). See Table 16.

Table 15: Underemployment rate (percentage) by age cohorts and by race, first quarter of 2020 and first quarter of 2021

category	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
14 to 18	15.3	16.2	18.0	19.8	11.0	11.0
19 to 64	6.9	8.2	8.4	9.9	5.1	6.3
65 or more	4.9	4.1	6.0	4.6	4.0	3.7
Total	7.0	8.2	8.6	10.0	5.2	6.2

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 16: Underemployment rate (percentage) by age cohorts and by sex and race, first quarter of 2020 and first quarter of 2021

category	Black Women		Black Men		White Women		White Men	
	2020	2021	2020	2021	2020	2021	2020	2021
14 to 18	18.8	24.5	17.6	17.7	11.8	14.1	10.6	9.1
19 to 64	10.4	12.5	6.9	8.1	6.5	8.1	3.9	4.7
65 or more	8.1	6.2	4.9	3.9	5.1	6.0	3.5	2.6
Total	10.5	12.6	7.2	8.2	6.6	8.1	4.0	4.7

Source: Elaborated by the authors with microdata of the Continuous PNAD.

As expected, the higher the education level, the lower the underemployment rate (Table 17). Nevertheless, augmentation of the underemployment rate was observed at all education levels and for all groups, except for white men with higher education (whose rate was maintained at 3.6 percent, at a low scale). In all education levels, the distance between black women's rate and white men's rate rose (Table 18). The higher education cohort displays the lowest differences in underemployment rates among social groups.

Table 17: Underemployment rate (percentage) by education level and race, first quarter of 2020 and first quarter of 2021

	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
Illiterate	10.8	13.4	11.7	13.9	7.7	11.5
Elementary school	9.2	10.6	10.8	12.4	6.3	7.9
High school	6.2	8.0	7.2	9.2	4.7	6.4
Higher education	5.0	5.5	5.9	6.7	4.5	4.9
Total	6.8	8.0	8.3	9.8	5.1	6.1

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 18: Underemployment rate (percentage) by education level, sex and race, first quarter of 2020 and first quarter of 2021

	Black Women		Black Men		White Women		White Men	
	2020	2021	2020	2021	2020	2021	2020	2021
Illiterate	12.6	17.5	11.4	12.6	8.6	13.3	7.3	10.7
Elementary school	14.6	16.8	8.9	10.3	9.2	11.2	4.7	6.1
High school	9.6	12.5	5.4	6.7	6.4	9.2	3.3	4.2
Higher education	3.9	4.2	4.4	4.8	5.3	5.9	3.6	3.6
Total	9.0	10.6	6.8	7.9	6.5	8.0	3.8	4.6

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The relationship between the unemployment rate and education level was not the same as between the underemployment rate and education progress. After all, the unemployment rate did not decrease until the higher education level. Until that point, the higher the education level, the higher the unemployment rate (Table 19). But this is more evident for women than men. Unemployment rates changed little for white men as the education level increased. In 2021, the unemployment rate for illiterate black women was half that of women with elementary school level (10.1 percent and 20.1 percent, respectively) and was almost the same as those with higher education (9.4 percent). See Table 20.

Table 19: Unemployment rate (percentage) by education level and race, first quarter of 2020 and first quarter of 2021

	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
Illiterate	9.5	9.6	10.2	9.4	7.4	10.1
Elementary school	10.7	13.0	12.1	14.9	8.2	9.8
High school	13.3	16.8	14.9	19.0	10.9	13.6
Higher education	8.1	10.3	9.9	12.4	7.0	9.0
Total	11.0	13.7	12.8	16.0	8.7	10.9

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 20: Unemployment rate (percentage) by education level, sex and race, first quarter of 2020 and first quarter of 2021

	Black Women		Black Men		White Women		White Men	
	2020	2021	2020	2021	2020	2021	2020	2021
Illiterate	9.1	10.1	10.5	9.2	5.6	10.1	8.1	10.1
Elementary school	14.9	20.1	10.6	12.2	9.8	13.2	7.3	7.9
High school	18.7	24.1	11.7	14.8	13.5	16.4	8.7	11.3
Higher education	7.6	9.4	7.6	10.0	7.8	10.2	6.1	7.6
Total	14.3	18.2	10.6	12.9	10.2	12.9	7.5	9.1

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Progress in education was not an efficient tool to reduce unemployment in 2021, especially for black women. The unemployment rate increased for all groups and all education levels (Table 21), except for illiterate black men, where it showed a little reduction. The bigger increase occurred in the group of black women with incomplete and complete elementary schooling (from 14.9 percent to 20.1 percent) and for black women with incomplete and complete high schooling (from 18.7 percent to 24.1 percent). With incomplete or complete higher education degrees, white men presented the lowest increase (6.1 percent to 7.6 percent); the three other groups showed around 2 percentage points hikes.

Table 21: Unemployment rate (percentage) by age cohorts and by race, first quarter of 2020 and first quarter of 2021

category	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
14 to 18	44.2	46.5	45.8	47.5	41.5	45.1
19 to 64	11.3	14.0	13.1	16.3	9.0	11.2
65 or more	3.3	3.4	3.4	4.2	3.3	2.9
Total	12.2	14.7	14.2	17.2	9.8	11.8

Source: Elaborated by the authors with microdata of the Continuous PNAD.

In terms of unemployment rates by age cohorts, some results for black women are astonishing (Table 22). For them, in all age cohorts, there was an elevation during this period (the rate in Brazil increased from 12.2 percent in 2020 to 14.7 percent in 2021) that reached remarkably high levels. Almost 60 percent of black women youth in the labour force were looking persistently for a job; among adults, one in five black women in the labour force (20.4 percent) was not working and was continuously looking for a job. This rate is twice as high as white men's for the same age (9.4 percent). Overall, the unemployment rate difference between black women and white men escalated (from 8.9 percentage points in 2020 to 11.4 percentage points in 2021).

Table 22: Unemployment rate (percentage) by age cohorts and by sex and race, first quarter of 2020 and first quarter of 2021

category	Black Women		Black Men		White Women		White Men	
	2020	2021	2020	2021	2020	2021	2020	2021
14 to 18	55.1	57.9	38.8	40.6	47.8	53.7	36.9	38.3
19 to 64	16.0	20.4	10.8	13.1	10.4	13.2	7.7	9.4
65 or more	2.5	3.7	3.8	4.5	3.1	2.6	3.3	3.1
Total	17.3	21.4	11.8	14.0	11.3	14.0	8.4	9.9

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Considering the variation in the number of people in the labour force who are unemployed, one can see that the white population exhibited a bigger rise (19.2 percent) than the black population (13.1 percent), explained by the lower level of unemployment in the white population compared to the black population (Table 23). Further, the rise in unemployment was more severe in the adult age cohort. It is important to highlight the huge jump in black women's unemployment above 65 years old, at 15.7 percent. Other groups showed lower increases (black men, 2.1 percent) or reductions (white women, -16.9 percent, and white men, -3.9 percent).

Table 23: Unemployment by age cohorts and by sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Total	Black people	White people	Black Women	Black Men	White Women	White Men
14 to 18	-10.2	-14.8	-1.8	-20.0	-9.2	4.6	-8.0
19 to 64	19.5	17.6	22.9	20.8	13.8	24.5	21.0
65 or more	-1.8	5.6	-8.1	15.7	2.1	-16.9	-3.9
Total	15.3	13.1	19.2	15.5	10.5	21.8	16.2

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Looking at unemployment variations by education levels reveals differences among social groups. Unemployment rose just a little for illiterate groups and was stable for white men with elementary school education (1.1 percent and 0 percent, respectively) while it saw a big increase in same groups of white women (69.4 percent and 21.1 percent, respectively). There was a significant reduction in unemployment for illiterate black men. Unemployment for black women rose with higher education levels. See Table 24.

Table 24: Unemployment by education level, sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Total	Black people	White people	Black Women	Black Men	White Women	White Men
Illiterate	-8.8	-14.4	16.3	7.4	-20.8	69.4	1.1
Elementary school	8.1	7.7	9.3	15.4	1.8	21.1	0.0
High school	20.6	20.7	20.5	21.4	19.8	14.7	28.1
Higher education	33.6	32.1	35.0	26.1	42.4	38.8	29.4
Total	19.2	17.5	22.4	20.4	13.7	24.1	20.4

Source: Elaborated by the authors with microdata of the Continuous PNAD.

More than an increase in unemployment (15.3 percent) or underemployment (8.9 percent), this period was markedly characterized by an elevation in the potential labour force (37.1 percent). Its positive variation was higher among white people (56.2 percent, with the same intensity for white women, 56.2 percent, and white men, 56.1 percent) than black people (28.8 percent, with a little more strength for black women, 31.2 percent,

than for black men, 25.5 percent). This again underlines that this crisis spread to groups that are not always affected. The significant increase in the potential labour force was more related to the rise in unavailable jobseekers (52.8 percent) than to discouraged jobseekers (25.4 percent).

The increase in unavailable jobseekers was relatively homogeneous through social groups and age cohorts (Table 25), with a little more intensity of growth for white men in adulthood, 80.9 percent, and older black women, 106.4 percent. White men's unavailability to work due to the pandemic context was a relatively new situation for this group (Table 26). The rate that relates unavailable jobseekers and the working-age population is lowest for white men (2 percent in 2021), less than half of black women's rate (4.3 percent) and lower than white women's rate (3.1 percent) and black men's rate (2.5 percent). Among adults, the difference between white men's unavailability rate and black women's is still higher (1.8 percent versus 4.8 percent, respectively). So, unavailability to work was strongly a condition for black women, although this was a new condition for various other people during the pandemic.

Table 25: Rates of unavailability among jobseekers (percentage) by age cohorts and by race, first quarter of 2020 and first quarter of 2021

category	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
14 to 18	4.7	5.7	4.9	5.8	4.3	5.6
19 to 64	2.0	3.2	2.2	3.6	1.7	2.8
65 or more	0.5	0.8	0.6	0.9	0.5	0.7
Total	2.0	3.0	2.3	3.4	1.7	2.6

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 26: Rates of unavailability among jobseekers (percentage) by age cohorts and by sex and race, first quarter of 2020 and first quarter of 2021

category	Black women		Black men		White women		White men	
	2020	2021	2020	2021	2020	2021	2020	2021
14 to 18	5.2	5.8	4.7	5.9	4.1	5.3	4.5	5.9
19 to 64	3.0	4.8	1.4	2.2	2.3	3.6	1.0	1.8
65 or more	0.4	0.8	0.8	1.0	0.5	0.7	0.6	0.8
Total	2.9	4.3	1.7	2.5	2.1	3.1	1.3	2.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

In the increase in discouraged jobseekers, one can see more disparities among social groups and age cohorts. It was more concentrated among white women (53.9 percent), especially the older cohort (77.6 percent), in which the variations for black women and black men were negative (-26.6 percent and -9.8 percent, respectively). See Table 27.

Table 27: Potential labour force and its components by age cohorts and by sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
14 to 28							
Potential Labour Force	22.6	13.5	45.0	13.0	13.9	41.7	48.1
unavailable jobseekers	21.5	14.0	35.6	5.7	22.5	34.1	36.9
discouraged jobseekers	23.6	13.1	57.5	19.2	7.9	51.2	64.0
19 to 64							
Potential Labour Force	40.6	33.3	58.0	35.1	30.5	57.7	58.7
unavailable jobseekers	60.6	56.8	67.1	58.1	53.8	61.7	80.9
discouraged jobseekers	26.1	19.2	48.0	18.2	20.6	52.1	42.6
65 or more							
Potential Labour Force	37.0	11.8	64.3	17.2	8.0	72.9	56.9
unavailable jobseekers	69.0	71.2	66.9	106.4	46.1	66.5	67.3
discouraged jobseekers	20.5	-16.6	62.9	-26.6	-9.8	77.6	52.4
Total							
Potential Labour Force	37.1	28.8	56.2	31.2	25.5	56.2	56.1
unavailable jobseekers	52.8	48.1	60.9	50.3	44.1	58.0	66.7
discouraged jobseekers	25.4	16.8	51.0	17.1	16.5	53.9	47.5

Source: Elaborated by the authors with microdata of the Continuous PNAD.

What is observed in the unavailability rate can also be seen in the rate of discouraged jobseekers (this category in relation to the working-age population, Table 28). Although the white population (51 percent) showed higher variation in this category than the black population (16.8 percent), the first group had a discouraged jobseeker rate (2.2 percent) that was half the latter's rate (4.4 percent).

As in analysis of the unavailability rate, here again, white men's rate (2.2 percent) was much lower than black women's rate (4.6 percent). In adulthood, the difference between them is even higher (2 percent for white men and 4.9 percent for black women). See Table 29.

Both the unavailability and discouraged jobseeker rates fell at higher ages. High rates among youth (14 to 18 years old) in both cases (not working but willing to work) are worrisome since they should be studying. Their rates should be as low as among older cohorts. But in 2021, around 7 percent of black working-age youth (women and men) were not working but desired to work.

Table 28: Rates of discouraged jobseekers (percentage) by age cohorts and by race, first quarter of 2020 and first quarter of 2021

category	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
14 to 18	5.2	6.4	6.4	7.5	3.2	4.9
19 to 64	2.8	3.5	3.7	4.5	1.5	2.2
65 or more	1.1	1.1	1.2	0.9	0.9	1.2
Total	2.8	3.4	3.7	4.4	1.6	2.2

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 29: Rates of discouraged jobseekers (percentage) by age cohorts and by sex and race, first quarter of 2020 and first quarter of 2021

category	Black women		Black men		White women		White men	
	2020	2021	2020	2021	2020	2021	2020	2021
14 to 18	6.1	7.7	6.6	7.3	3.3	4.8	3.2	5.0
19 to 64	4.1	4.9	3.3	4.1	1.7	2.4	1.4	2.0
65 or more	0.9	0.6	1.6	1.3	0.7	1.0	1.3	1.6
Total	3.9	4.6	3.5	4.1	1.6	2.3	1.6	2.2

Source: Elaborated by the authors with microdata of the Continuous PNAD.

To illustrate how unavailability was an important characteristic of the pandemic, one can visualize the expressive positive variations of groups with higher education degrees, mainly black women (75.3 percent) and white men (114.8 percent). This shows that even with the best condition to get or maintain a job, given the highest level of qualification, it was not enough to prevent unavailability. The same can be seen in discouraged jobseekers: White men and black women with higher degrees exhibited very high variations (124.3 percent and 101.5 percent, respectively).

Table 30: Potential labour force and its components by education level cohorts and by sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Brazil	Black people	White people	Black Women	Black Men	White Women	White Men
Illiterate							
Potential labour force	8.7	9.2	6.3	17.1	3.7	-11.3	24.0
unavailable jobseekers	22.5	13.0	53.1	13.4	12.5	16.2	158.0
discouraged jobseekers	3.5	7.9	-17.7	19.2	1.7	-38.6	-4.8
elementary school							
Potential labour force	21.3	16.8	35.1	19.9	12.8	40.1	28.5
unavailable jobseekers	43.1	46.5	35.1	43.4	53.2	42.1	21.4
discouraged jobseekers	9.9	2.8	35.1	4.9	0.6	38.2	32.0
high school							
Potential labour force	54.2	46.1	72.8	39.1	60.9	77.6	63.8
unavailable jobseekers	73.7	65.1	88.7	62.4	72.6	84.2	100.2
discouraged jobseekers	39.8	34.2	56.2	22.6	55.4	69.2	37.5
higher education							
Potential labour force	71.0	64.8	76.7	84.7	33.8	58.9	118.6
unavailable jobseekers	72.7	75.2	70.5	75.3	33.5	54.7	114.8
discouraged jobseekers	67.7	47.6	89.4	101.5	34.4	69.1	124.3

Source: Elaborated by the authors with microdata of the Continuous PNAD.

As shown in Table 30, except for white women, the unavailability rate was lower than the rate for discouraged jobseekers for the other three groups. But for all in the higher education cohort, the unavailability rate remained higher than the discouraged jobseekers rate and the change between the two years was greater for the unavailability rate than for the discouraged jobseekers rate. This makes sense because a degree elevates chances to get a good job but obstacles that generate unavailability can offset this powerful tool. That is why rates of discouraged jobseekers are the lowest within the higher education cohort compared with other education levels. This does not occur with the unavailability rate, which appears around the same, irrespective of the level of education. See also Tables 31 and 32.

Table 31: Potential labour force rate (percentage) and its components by education level and race, first quarter of 2020 and first quarter of 2021

	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
Illiterate						
Potential Labour Force	3.9	4.1	4.4	4.8	2.7	2.5
unavailable jobseekers	1.1	1.3	1.1	1.3	0.9	1.2
discouraged jobseekers	2.8	2.8	3.2	3.5	1.8	1.3
elementary school						
Potential Labour Force	5.0	6.2	6.2	7.6	3.2	4.1
unavailable jobseekers	1.7	2.5	2.0	3.1	1.3	1.7
discouraged jobseekers	3.3	3.7	4.2	4.6	1.8	2.4
high school						
Potential Labour Force	4.6	7.0	5.5	8.1	3.4	5.6
unavailable jobseekers	2.0	3.3	2.1	3.5	1.7	3.1
discouraged jobseekers	2.7	3.7	3.4	4.6	1.7	2.5
higher education						
Potential Labour Force	2.7	4.2	3.5	5.3	2.3	3.6
unavailable jobseekers	1.8	2.8	2.2	3.5	1.5	2.3
discouraged jobseekers	1.0	1.5	1.3	1.8	0.7	1.3
Total						
Potential Labour Force	4.3	5.9	5.4	7.2	2.9	4.3
unavailable jobseekers	1.8	2.8	2.0	3.2	1.5	2.3
discouraged jobseekers	2.5	3.1	3.4	4.0	1.4	2.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 32: Potential labour force rate (percentage) and its components by education level, sex and race, first quarter of 2020 and first quarter of 2021

	Black women		Black men		White women		White men	
	2020	2021	2020	2021	2020	2021	2020	2021
Illiterate								
Potential Labour Force	3.6	4.1	5.2	5.5	2.4	1.8	3.1	3.5
unavailable jobseekers	1.3	1.4	1.0	1.1	1.2	1.2	0.5	1.3
discouraged jobseekers	2.3	2.7	4.2	4.4	1.2	0.6	2.5	2.2
elementary school								
Potential Labour Force	7.3	9.0	5.3	6.3	3.4	4.4	2.9	3.6
unavailable jobseekers	2.8	4.2	1.2	2.0	1.7	2.2	0.9	1.1
discouraged jobseekers	4.4	4.8	4.0	4.3	1.8	2.3	1.9	2.5
high school								
Potential Labour Force	7.2	9.9	3.7	6.0	4.2	7.0	2.5	3.9
unavailable jobseekers	3.0	4.8	1.2	2.1	2.3	4.1	1.0	2.0
discouraged jobseekers	4.2	5.1	2.5	4.0	1.8	3.0	1.4	1.9
higher education								
Potential Labour Force	2.3	3.9	3.3	4.0	2.8	3.9	1.6	3.1
unavailable jobseekers	1.5	2.4	2.2	2.7	2.0	2.7	0.9	1.8
discouraged jobseekers	0.8	1.5	1.1	1.3	0.8	1.2	0.6	1.3
Total								
Potential Labour Force	6.0	7.9	4.4	5.8	3.4	5.0	2.4	3.5
unavailable jobseekers	2.5	3.8	1.3	2.1	2.0	2.9	1.0	1.6
discouraged jobseekers	3.5	4.1	3.1	3.8	1.5	2.1	1.4	1.9

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Combining underemployment, unemployment and potential labour force rates shows the underutilization category, which comprises people who want to work but are not realizing full labour force utilization as they are underemployed, unemployed, unavailable or discouraged jobseekers (Table 33). Between the first quarters of 2020 and 2021, total underutilization grew (20.3 percent) in all social groups, with more intensity in the white population (30.6 percent for white women and 25.3 percent for white men) than in the black population (18.9 percent for black women and 13.2 percent for black men). The age cohort that contributed more to this growth was working-age adults (23 percent), especially given the huge increase in the potential labour force (40.6 percent). This category also saw major growth for youth and older cohorts.

Table 33: Underutilization and its components by age cohorts and by sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Total	Black people	White people	Black Women	Black Men	White Women	White Men
14 to 18							
Underutilization	3.5	-2.0	15.3	-4.5	0.5	18.9	12.0
Underemployment	-13.2	-12.2	-15.6	-7.1	-15.2	-1.0	-25.7
Unemployment	-10.2	-14.8	-1.8	-20.0	-9.2	4.6	-8.0
Potential Labour Force	22.6	13.5	45.0	13.0	13.9	41.7	48.1
Unavailable jobseeker	21.5	14.0	35.6	5.7	22.5	34.1	36.9
Discourage jobseeker	23.6	13.1	57.5	19.2	7.9	51.2	64.0
19 to 64							
Underutilization	23.0	19.6	30.0	22.4	16.0	31.5	27.8
Underemployment	10.9	7.5	17.6	8.3	6.7	17.5	17.8
Unemployment	19.5	17.6	22.9	20.8	13.8	24.5	21.0
Potential Labour Force	40.6	33.3	58.0	35.1	30.5	57.7	58.7
Unavailable jobseeker	60.6	56.8	67.1	58.1	53.8	61.7	80.9
Discourage jobseeker	26.1	19.2	48.0	18.2	20.6	52.1	42.6
65 or more							
Underutilization	15.5	-1.7	33.8	-1.1	-2.1	47.1	23.9
Underemployment	-21.6	-35.0	-5.3	-40.5	-30.1	19.2	-23.5
Unemployment	-1.8	5.6	-8.1	15.7	2.1	-16.9	-3.9
Potential Labour Force	37.0	11.8	64.3	17.2	8.0	72.9	56.9
Unavailable jobseeker	69.0	71.2	66.9	106.4	46.1	66.5	67.3
Discourage jobseeker	20.5	-16.6	62.9	-26.6	-9.8	77.6	52.4
Total							
Underutilization	20.3	16.3	28.3	18.9	13.2	30.6	25.3
Underemployment	8.9	5.5	15.4	6.7	4.2	17.0	13.2
Unemployment	15.3	13.1	19.2	15.5	10.5	21.8	16.2
Potential Labour Force	37.1	28.8	56.2	31.2	25.5	56.2	56.1
Unavailable jobseeker	52.8	48.1	60.9	50.3	44.1	58.0	66.7
Discourage jobseeker	25.4	16.8	51.0	17.1	16.5	53.9	47.5

Source: Elaborated by the authors with microdata of the Continuous PNAD.

From 14 to 18 years old, underutilization fell for black women due to the high decline in underemployment (-7.1 percent) and unemployment (-20 percent). In this age cohort, underemployment declined for all groups, and the same occurred in unemployment, except for white women (4.6 percent). A big reduction in unemployment also happened for black women above 65 years old (-40.5 percent), and for black men and white men in the same age range (-30.1 percent and -23.5 percent, respectively).

This explains why white men and white women's participation rose in the total underutilization category and all its components. The opposite occurred for black men and black women's participation. Despite the reduction, black women remained the social group with the biggest participation in all categories (35.8 percent of people underutilized, 33.4 percent of the underemployed, 34.3 percent of the unemployed, 40.8 percent of the potential labour force, 40.8 percent of discouraged jobseekers and 40.9 percent of unavailable jobseekers). All these rates are higher than black women's participation in the working-age cohort (28 percent). See Table 34.

Table 34: Underutilization and its components (percentage) by sex and race, first quarter of 2020 and first quarter of 2021

	category	underutilization	underemployment	unemployment	potential labour force	discouraged jobseekers	unavailable jobseekers
Brazil	2020	100.0	100.0	100.0	100.0	100.0	100.0
	2021	100.0	100.0	100.0	100.0	100.0	100.0
Black people	2020	66.5	66.2	64.5	69.9	74.9	63.0
	2021	64.3	64.2	63.2	65.7	69.8	61.1
White people	2020	33.5	33.8	35.5	30.1	25.1	37.0
	2021	35.7	35.8	36.8	34.3	30.2	38.9
Black Women	2020	36.2	34.1	34.3	40.8	40.8	40.9
	2021	35.8	33.4	34.3	39.1	38.1	40.2
Black Men	2020	30.3	32.1	30.2	29.0	34.1	22.1
	2021	28.5	30.8	28.9	26.6	31.7	20.9
White Women	2020	19.0	19.7	19.1	18.3	13.7	24.5
	2021	20.6	21.1	20.2	20.8	16.8	25.3
White Men	2020	14.5	14.1	16.4	11.9	11.4	12.5
	2021	15.1	14.7	16.5	13.5	13.4	13.6

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The lower the age, the higher the underutilization rate. The explanation for this appears to reside in the level of qualifications and experiences to get a stable job and in the activity rate of those groups. In 2021, the underutilization rate for youth was 71.4 percent, while in adulthood it was 27.9 percent and above age 65 it was 20 percent (Table 35).

In all social groups, this rate increased by around 5 percentage points. Among youth and older cohorts, black women presented the second highest increase in the underutilization rate (the highest was reached by white women). Nevertheless, black women had the highest increase in the adult cohort's underutilization rate and for all age ranges showed the top underutilization rate (Table 36).

The difference between white men (with the lowest rates and increments) and black women broadened. The gap in 2020 was 19.3 percentage points—34.7 percent versus 15.4 percent. It was 22.9 percentage points in 2021—42.1 percent versus 19.2 percent.

Table 35: Underutilization rate (percentage) by age cohorts and by race, first quarter of 2020 and first quarter of 2021

category	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
14 to 18	66.1	71.4	69.2	73.9	60.2	67.2
19 to 64	22.4	27.9	26.5	32.6	17.2	22.2
65 or more	17.1	20.0	19.3	21.6	15.2	18.9

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 36: Underutilization rate (percentage) by age cohorts and by sex and race, first quarter of 2020 and first quarter of 2021

category	Black women		Black men		White women		White men	
	2020	2021	2020	2021	2020	2021	2020	2021
14 to 18	75.7	81.7	64.1	68.0	65.9	74.1	55.7	61.6
19 to 64	32.6	40.3	21.5	26.0	20.9	27.2	13.7	17.5
65 or more	21.9	25.9	17.9	19.4	18.7	25.3	13.3	15.5

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The underutilization rate increased at all levels of education, including in the higher education cohort (it grew from 15.6 to 19.8 percent and presented the highest positive variation rate, 35.7 percent). It is true that the higher the education level, the lower the underutilization rate (for example, in 2021, the rate for the illiterate cohort was 34.9 percent, well above the rate for the higher education cohort at 15.6 percent). But the fact that the growth rate in this top education level was the upmost among others showed that the pandemic reached groups usually more protected from economic downturns.

One explanation of lower growth at low education levels is the high reduction in the labour force for this group of people. Their exit from the labour force (and from the extended labour force) can be explained by the extreme difficulties in finding a job in a profound economic recession and by public policies (income transfer programmes such as emergency aid or pension and retirement transfers). See Tables 37, 38 and 39.

Table 37: Underutilization rate (percentage) by education level and race, first quarter of 2020 and first quarter of 2021

	Brazil		Black people		White people	
	2020	2021	2020	2021	2020	2021
Illiterate	30.9	34.9	32.7	35.6	24.9	32.3
Elementary school	26.0	31.3	29.6	35.3	19.4	24.3
High school	23.4	30.4	26.4	33.9	18.9	25.3
Higher education	15.6	19.8	18.7	23.5	13.7	17.4
Total	22.2	27.7	26.3	32.3	17.1	22.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 38: Underutilization rate (percentage) by education level, sex and race, first quarter of 2020 and first quarter of 2021

	Black Women		Black Men		White Women		White Men	
	2020	2021	2020	2021	2020	2021	2020	2021
Illiterate	38.2	44.9	30.6	31.7	30.2	36.4	22.5	30.2
Elementary school	38.7	47.3	24.3	28.2	25.6	33.5	15.5	18.6
High school	33.8	42.8	19.9	25.9	24.1	32.6	14.3	19.0
Higher education	13.6	17.5	14.9	18.3	15.8	20.1	11.1	14.2
Total	29.6	36.5	21.3	25.8	20.9	27.1	13.7	17.4

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Table 39: Underutilization by education level, sex and race, first quarter of 2020 versus first quarter of 2021, variation (percentage)

	Total	Black people	White people	Black Women	Black Men	White Women	White Men
Illiterate	5.0	3.2	13.1	18.8	-4.5	11.2	14.3
Elementary school	10.4	7.6	18.3	11.1	4.3	23.3	13.1
High school	28.6	25.9	34.3	25.3	26.9	34.4	34.1
Higher education	35.7	35.2	36.2	33.4	32.6	35.8	36.9
Total	22.8	19.1	30.1	21.1	15.5	32.0	27.6

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The next section presents some policy recommendations based on the figures above as a description of the impact of the pandemic on the enlargement of social inequalities in Brazil.

Policy recommendations

Considering this paper's analyses, across diverse dimensions, equality is far away for the black population in Brazil. The situation could become even worse when considering the intersection between gender and race, namely for black women. For this reason, the paper offers three groups of policy recommendations to build an equal society.

Two pillars sustain the following recommendations. First, they were elaborated based on figures from the first year of the health and economic crises in Brazil but also the repercussions in 2021, so they reflect the social and economic framework for the Brazilian population at the end of 2021. Second, they are supported by international practices implemented during the same period, with noted results.

DATA AND STATISTICS

The first group of policy recommendations is about enhancing statistical surveys in Brazil. The Continuous PNAD could be improved with a smooth release, enabling a more comprehensive range of researchers to access the data in an easier way and offering different forms of data aggregation. Additionally, the budget allocated to the IBGE, and consequently for its surveys like the Continuous PNAD and the Census, should be enlarged to make national statistics a main priority in the national agenda.

GENDER AND RACE ISSUES IN THE LABOUR MARKET

Women, and especially black women, are in a very fragile position in terms of human security. They do not have the right to freedom from want, freedom from fear and freedom to live in dignity. One of the main reasons is their lack of monetary resources. Some recommendations to tackle this problem:

Women's labour force participation and level of employment enhancement

As discussed in this paper, women, and especially black women, are among the most vulnerable groups in Brazilian society. They have restrictions on work, and when they do work, they make less. They also bear heavy responsibilities for domestic and childcare labour in their houses and other houses. This paper emphasizes women's high shares of self-employment or own-account activities to earn income as alternatives to unemployment. Such activities were extremely impacted by pandemic restrictions. Even after restrictions eased, these activities are still in disarray with many financial and non-financial obstacles to recovery. Some suggestions to respond are:

- Expand public nurseries and kindergartens.
- Enlarge the public transfer Bolsa Família programme dedicated to mothers with young children.
- Support institutions dedicated to women's collective activities and enterprises, stimulating their entrepreneurship.
- Incentivize women to attend technical and professional courses.
- Stimulate discussion in local associations on themes related to the gender division of labour in order to increase men's responsibilities and duties in day-to-day care and domestic work.

Increase the participation in economic activities of women with low education

This paper highlights how some groups are excluded from economic activities and therefore from financial autonomy. This is the case of black and white women with low education. It can be seen in the high inactivity rate related to low levels of formal education (illiterate or incomplete fundamental schooling). These groups do not integrate even in the extended labour force. Many do not feel they have the capabilities and conditions to look for a job. These groups (and their children) are vulnerable to hunger, domestic abuse, violence and work with conditions analogous to slavery. It is recommended to:

- Increase public budgets to social programmes.
- Strengthen solidarity activities for groups of artisans, garbage recyclers, etc.

- Reinforce public inspections to evaluate work conditions in distant regions and urban areas and interdict illegal activities.

Enhance women's personal security

This paper presents the significant income disparities between women and men, especially between black women and white men. Those differences together with women's high levels of inactivity and underutilization can generate vulnerable situations, such as greater risks of domestic violence that can stem from increased financial dependency on their partners. Some suggestions to address these issues are:

- Improve comprehensive sexuality and gender education in schools and other institutions, and boost feminist and anti-racist movements to contribute to changes in social norms that are harmful and disrespectful to women.
- Expand the number of Women's Special Police Offices and extend their hours to weekends when violent crimes against women mostly occur.

A social security programme that allows monetary transfers to women who need to stay at home is a crucial step towards emancipation. The right to retirement after a period of unpaid work at home is also fundamental. Having housing and the care of children recognized as work associated with the right to retirement is critical to women's security.

Increase black women's labour earnings

This paper highlights black women's shockingly lower earnings irrespective of the sector where they work or their educational attainment. This pattern is caused mainly by their high shares in domestic work and other sectors of activity with high informality. To rectify low payments, some recommendations are:

- Reinforce efforts to enhance equality in domestic work and other sectors of activity.
- Support affirmative policies directed to high-level positions on company boards, head positions, etc.
- Support policies for work formalization and inspection services to track work conditions.

Support movements against prejudice and racism

This paper shows the nefarious impact of racial prejudice and discrimination. To confront this stain on Brazilian society, some suggestions are:

- Support educational curricula and institutions that magnify all the rich contributions of black and indigenous peoples to Brazilian economic progress and Brazilian social and cultural history.

- Expand educational material with content that presents indigenous peoples and black people as the main authors and subjects of Brazilian history to enhance their school attendance and performance.
- Increase participation in forums, seminars, colloquiums and debates that explore racism, sexism and discrimination, and their impacts on violence and other forms of inequalities and injustice.

SOCIAL, ECONOMIC, AND ENVIRONMENTAL PROGRAMMES

This third group of recommendations relates to domains beyond the labour market. Some are considered ‘pre-market’, as in the case of education and food security. Some can be defined as ‘post-market’ propositions, as in those related to taxation, transfer income programmes, and ecological and social sustainability.

Taxation and redistribution

A substantial share of economic resources is not reflected in traditional statistics worldwide. The National Accounts framework does not measure essential capital earnings, capital flows and profits. Income outside statistics could be accounted for, appropriated and redistributed by the public sector for fighting inequality and improving human development. With the advent of COVID-19, issues related to the distribution of wealth, income and other variables related to well-being have become even more urgent. Consequently, another policy recommendation is to increase Brazil’s capital earnings and wealth taxation to finance policies focused on tackling gender and racial inequalities.

Climate preservation

The preservation of indigenous lands is crucial to maintain life on Earth. Through a lifestyle in harmony with the ecosystem and biodiversity, indigenous peoples contribute to the balance of human life and, consequently, the possibilities of human development for coming generations. Unfortunately, indigenous lands suffer frequent attacks that lead to deforestation, fire and the destruction of fauna and flora. These attacks are against indigenous land, indigenous peoples and humanity. For these reasons, it is highly recommended that the preservation of indigenous territory be one of the primary goals of public policies in Brazil.

Support for food and housing security

This paper showed worsening labour market conditions for socially vulnerable groups during the 2020 to 2021 pandemic crisis, especially for black women, with losses in work vacancies, jobs and labour earnings. The last months of 2020 saw a severe price increase in basic items such as food, fuel, cooking gas, rent and building materials, producing a crisis in food and housing security. Some recommendations are:

- Raise the monetary value of transfers and expand the coverage of the emergency aid programme to newly vulnerable people not eligible in the registration period.

- Create new programmes of public income transfer with a gender and race approach.
- Create some subsidies for water, electricity and gas cooking bills for poor families and for families headed by mothers to guarantee basic nutrition.
- Improve the nutritional value of meals offered at public schools. For some children, those meals are the only ones they eat.
- Expand public restaurants for homeless and poor families.
- Support programmes for public housing to confront the massive increase of homeless people.
- Extend an eviction moratorium while underutilization rates remain at record levels.

Support to educational institutions and a learning 'rescue'

Data on youth aged 14 to 18 showed their vulnerabilities to unemployment and underemployment at a period in life when they should be going to school. At the same time, data underline the importance of higher degrees to reduce unemployment and underemployment. The lowest education level is among black men. So, for youth, it is recommended to:

- Extend scholarships at universities to avoid dropouts linked to learning and financial difficulties.
- Enact a moratorium on student debt for poor families.
- Boost the hiring of teachers and educational assistants in public schools to recover losses in learning during school closures and remote classes.
- Reinforce investments in digital technologies with pedagogical uses.

Actions for the elderly

Based on the social security system, people over 65 should be able to retire. Their labour force participation rate is, in fact, lower than in other age cohorts. But nevertheless, their unemployment and underemployment rates are notable. Self-employment is the main form of occupation among people in this age bracket, which shows their difficulty in finding and maintaining other kinds of employment. For this group, it is recommended:

- Reduce the time for mothers to be eligible for pension funds by recognizing years of reproductive labour or non-paid work.
- Improve conditions in shelters with adaptations for old poor people.
- Create social subsidies for elderly tenants.
- Establish easy access to pension funds for people with a disability.

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Annex

This Annex complements the main text. The first section presents introductory data about the black population in Brazil. It also presents some considerations on indigenous peoples and a brief analysis of their participation in the Brazilian labour market. Finally, it maps the general characteristics of the black and white population, mainly considering their insertion in the labour market and their sector composition. The second section analyses figures that constitute a portrait of social inequalities in Brazil based on race and gender. It explores the condition of the four groups (black men, black women, white men and white woman) in 2021 after one year of experiencing the pandemic. A third section presents a statistical annex.

SELECTED DEMOGRAPHIC AND SOCIOECONOMIC INDICATORS IN BRAZIL: NOTES ON INDIGENOUS PEOPLES AND THE BLACK AND WHITE POPULATIONS

Brazil's population by race and ethnic group

This section presents selected demographic and socioeconomic indicators on the Brazilian people, mostly based on data from the first quarter of 2021 and other historical periods when pertinent. It considers labour market problems driven by racism and discrimination.

In 2021, the Brazilian population was estimated at 212 million inhabitants (Annex Table 1), according to the PNAD/IBGE, split by black people²⁰ (54.5 percent of the total, with 45.9 percent self-declared as brown and 8.7 percent as black); white people (45.2 percent of the total, with 44.4 percent self-declared as white and 0.7 percent as yellow); indigenous peoples (representing 0.3 percent of the total) and people with ethnicity not declared (0.03 percent of the total).

²⁰ In Brazilian studies, black people are largely considered to be those who self-declare as black or brown (*pardo*) to the PNAD. White people are those who self-declare as white or yellow, and indigenous peoples are those who self-declare as indigenous. Only one answer is possible in the survey, therefore, it is impossible to be indigenous and black, for example. Many papers use this characterization, such as Cerqueira and Moura 2013, Silva and Silva 2014, Osorio 2021 and Silva and Lopes 2021.

Annex Table 1: Total population, by race or ethnicity (thousands and percentage), first quarter of 2021

	Population (thousands)	Participation (percentage)
Brazil	212,040	100.0
Black people	115,629	54.5
Self-declared black	18,346	8.7
Self-declared brown	97,283	45.9
White people	95,749	45.2
Self-declared white	94,187	44.4
Self-declared yellow	1,562	0.7
Indigenous peoples	607	0.3
Ethnicity not declared	54	0.03

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Indigenous peoples: population, working condition, earnings and some current social threats

Despite the prominence of indigenous peoples in Brazilian society in terms of culture, language, customs, habits and ethnicity, native peoples seem to be underrepresented in Brazilian statistics.

Historically, Brazilian authorities made efforts to erase all subjects related to indigenous peoples. Mentions of native peoples are scarce in the national educational system and traditional domestic media. Assuredly, indigenists, anthropologists and sociologists have contributed to collecting information on and preserving the memories of native peoples. Along with indigenous and social movements, a part of Brazilian society fights to preserve indigenous peoples and their cultures.

In 2021, based on the Continuous PNAD, indigenous peoples numbered 607,000 (Annex Table 1), a 0.3 percent share of the population. In 2010, during the last national Census, they numbered 896,917 (IBGE, 2022), representing 0.4 percent of the total population. The Census found that 502,083 indigenous peoples lived in rural areas and 324,834 in urban areas. They spoke 274 languages and comprised 305 ethnicities; 17.5 percent did not speak Portuguese. Only 57.5 percent of native peoples in Brazil lived in indigenous territories recognized by the Government.²¹

The arrival of the Europeans and the formation of the nation of Brazil in the sixteenth century began the eradication of the Brazilian native peoples (Annex Table 2).

²¹ According to Terras indígenas do Brasil (2020), the legal situation of these lands is: 120 under identification, 44 identified, 73 declared, and 487 reserved and homologated. The distribution of the lands over Brazilian territory is: 59 percent at Legal Amazon, 30 percent at Atlantic Forest Domain and 11 percent at other areas.

Annex Table 2: Indigenous peoples and their location by year, in thousands and percentage of total population

Year	Coast	Interior	Total	Participation (percentage)
1500	2,000	1,000	3,000	100.00
1570	200	1,000	1,200	95.00
1650	100	600	700	73.00
1825	60	300	360	9.00
1940	20	180	200	0.40
1950	10	140	150	0.37
1957	5	65	70	0.10
1980	10	200	210	0.19
1995	30	300	330	0.20
2000	60	340	400	0.20
2010	273	545	818	0.26

Source: FUNAI (National Foundation of Indigenous). Available at: <http://www.funai.gov.br/index.php/indios-no-brasil/quem-sao>.

The preservation of indigenous territory means protection against deforestation and environmental destruction. One indigenous person of Amazonas, who lives in harmony with nature while preserving natural resources, helps decarbonize the equivalent of what one person of the richest 1 percent pollutes.²²

Epecially after 2018, invasions, fires and illegal possession of indigenous lands put indigenous peoples at risk. First, the invaders cut down the biggest trees to sell the timber; then they set fire to the forest, surround the territory and occupy it with cattle, agriculture or mining. This movement, classified as ‘invasion for possession, illegal exploitation and damage to property’, jumped from 109 cases in 2018 to 256 cases in 2019. These occurred in 151 indigenous lands, represented by 143 peoples, in 23 of the 27 Brazilian states.²³

In August 2019, the National Institute for Space Research²⁴ recorded 30,900 fires in the Amazon forest, a number three times greater than in August 2018. Indigenous lands were heavily affected.

According to Cimi (2020), deforestation in the Amazon region on indigenous lands between August 2018 and July 2019 was the highest recorded in the last 11 years, with 42,600 hectares deforested. In eastern Amazon, the forest now emits more carbon dioxide than it absorbs.²⁵

Annex Table 3 shows the magnitude of the fire problem in Brazil and how it affects other biomes that are also the territory of indigenous peoples.

²² UNDP 2020.

²³ Cimi 2020.

²⁴ Ibid.

²⁵ Gatti et al. 2020.

Annex Table 3: Number of fires in indigenous lands by biome

Biome/year	2019	2018	Variation (percentage)
Amazon	6,293	3,758	67.5
Cerrado	9,543	4,914	94.2
Pantanal	499	73	583.6
Atlantic Forest	338	189	78.8
Caatinga	7	8	-12.5
Total	16,680	8,942	86.5

Source: Cimi 2020.

This issue goes beyond climate change, and it is not just a matter of land invasions. It directly affects the people who live on these lands. From 2018 to 2019, territorial conflicts grew from 11 to 35. The number of indigenous people killed by ‘lack of assistance’ (none or low access to medical care, medicine and medical equipment) increased from 11 to 31. In 2019, 113 indigenous people were murdered, 20 were killed by manslaughter, 10 suffered sexual violence, and 133 committed suicide, 32 more than in 2018. There was also an increase in infant mortality from 591 in 2018 to 825 in 2019.²⁶

Current debate in Brazil on the extension and distribution of indigenous land is driven by strong economic interests represented by powerful groups with political influence. Environmental preservation is only possible because indigenous peoples occupy the lands, however. Their presence is crucial for the survival not only of Brazilian society but of humanity, since the preservation of Legal Amazon and other biomes is responsible for the planet’s equilibrium. It is impossible to discuss human development and the future of humanity without guaranteeing the protection of indigenous peoples.

Indigenous peoples in the labour market

Even knowing that the Continuous PNAD underestimates indigenous peoples’ data, this section shows the impacts of the pandemic on them, using available data to consider changes in 2020 and 2021. Comparison is only possible from a time-related perspective and not with other social groups.

Annex Table 4 shows the problem of underestimation, as only 574,900 indigenous comprised the working-age population in 2020. The indigenous working-age population declined by -9.2 percent in 2021, although this calculation took place amid obstacles posed by COVID-19.

Considering that the Continuous PNAD focuses on urban areas, most indigenous peoples were in the labour force (participation rate of 58.1 percent in 2020 and 53.6 percent in 2021). Yet they also lost their productive activities during this one-year period. A 17.9 percent reduction in indigenous peoples’ employment during the

²⁶ Cimi 2020.

pandemic is noted, along with a reduction of 19.3 percent in underemployment and 3.8 percent in unemployment.

It is possible to see an increase in the number outside the labour force (almost 1,000), a slight increase in the potential labour force (200), augmented by discouraged jobseekers (3,200). Observing differences by sex, indigenous women are the majority (53.3 percent in 2020 and 56.1 percent in 2021). Nevertheless, they represent a small portion in the labour market (44.1 percent in 2020 and 41.5 percent in 2021).

Annex Table 4: Indigenous peoples (thousands) in the working-age population, first quarter of 2020 and first quarter of 2021

Category	Indigenous peoples		Indigenous women		Indigenous men	
	2020	2021	2020	2021	2020	2021
Working-age population (A + B)	574.9	521.6	306.2	292.8	268.7	228.8
A. Labour force (A.1 + A.2)	334.1	279.7	147.6	116.1	186.4	163.7
A.1 Employment	292.4	239.8	127.7	95.7	164.8	144.0
A.1.1 Underemployment	25.8	20.8	11.6	10.2	14.3	10.6
A.2 Unemployment	41.6	40.0	20.0	20.3	21.7	19.6
B. Outside the labour force	240.8	241.9	158.6	176.7	82.3	65.2
B.1 Potential labour force (B.1.1 + B.1.2)	43.4	43.6	23.9	27.8	19.5	15.8
B.1.1 Unavailable jobseekers	28.7	25.1	14.0	16.8	14.7	8.3
B.1.2 Discouraged jobseekers	14.7	18.5	9.9	11.0	4.8	7.5
B.2 Outside the extended labour force	197.5	198.3	134.7	148.9	62.8	49.4
Extended labour force (A + B.1)	377.4	323.3	171.5	143.9	205.9	179.5
Labour underutilization (A.1.1 + A.2 + B.1)	110.9	104.4	55.4	58.3	55.5	46.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Most employed indigenous peoples (Annex Table 5) are concentrated in three categories: private sector formal employees (30.1 percent in 2020 and 32.9 percent in 2021); own-account workers (28.7 percent in 2020 and 25 percent in 2021) and contributing family workers (27 percent in 2020 and 32.9 percent in 2021). This scenario was similar for both women and men. Earnings were low. For contributing family workers, payments were near zero. For the other occupations, they were below twice the monthly minimum wage.

Annex Table 5: Employment occupations (thousands) and earnings (proportionate to the monthly minimum wage) of indigenous peoples, first quarter of 2020 and first quarter of 2021

	Indigenous peoples				Indigenous women				Indigenous men			
	2020		2021		2020		2021		2020		2021	
	n	MW	n	MW	n	MW	n	MW	n	MW	n	MW
Private sector formal employee	88	1.7	79	2.0	36	1.6	31	2.4	53	1.8	48	1.7
Private sector informal employee	44	1.3	29	1.0	15	1.0	9	1.0	29	1.4	20	0.9
Formal domestic worker	5	1.2	1	1.0	4	1.2	1	1.0	1	1.4	0	1.0
Informal domestic worker	14	0.7	11	0.6	13	0.7	9	0.5	1	0.8	2	0.6
Public sector formal employee	3	3.4	3	3.1	1	3.1	2	3.5	2	3.5	0	1.5
Public sector informal employee	16	1.9	13	1.7	10	1.5	6	1.4	5	2.7	7	2.0
Military and other public services	21	2.8	25	3.9	12	2.8	12	4.2	9	2.8	13	3.7
Employer	11	7.2	13	4.2	1	2.8	1	2.7	9	7.9	12	4.2
Own account	84	1.3	60	1.1	31	1.3	20	1.0	53	1.3	40	1.1
Contributing family worker	79	1.8	79	0.0	31	2.0	31	0.0	48	0.0	48	0.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

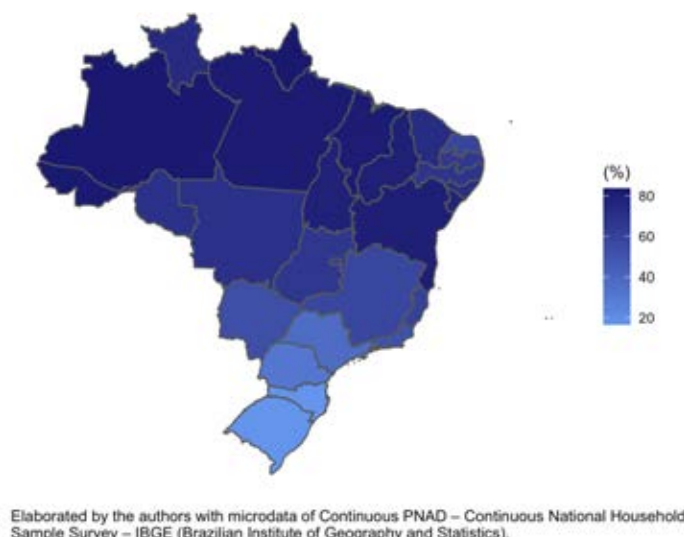
Informal domestic work suffered during the COVID-19 pandemic, with an impact on indigenous women. There was a downturn of 30.7 percent in vacancies for these women. Their earnings were already below the monthly minimum wage.

Selected indicators to characterize the black population in Brazil: geographic location, work conditions, earnings and education levels

This section looks at the geographical distribution of black and white people, and considers their earnings by location. It examines the composition of the labour market and compares earnings by sector and race.

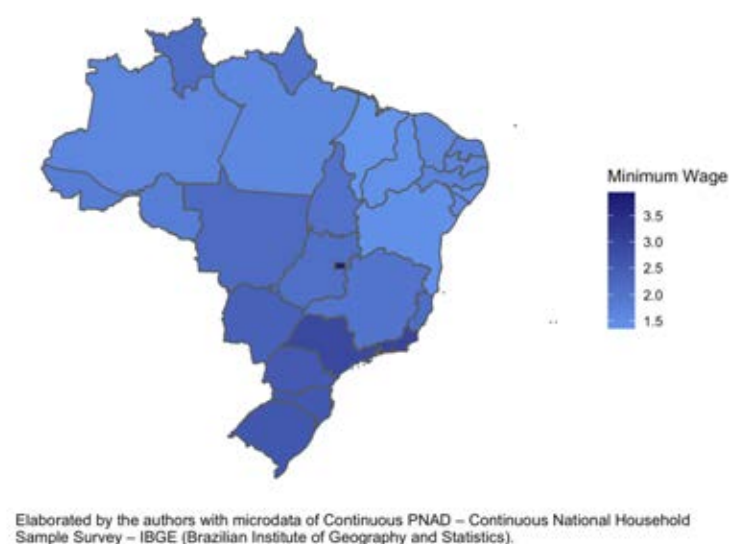
Annex Figure 1 shows the shares of black people in the working-age population by state. Black people are concentrated in the northern and north-eastern regions, comprising more than 80 percent of the population in some places. On the other hand, the southern and south-eastern regions have the smallest black population shares, below 20 percent in some southern states.

Annex Figure 1: Black people (percentage) by state, first quarter of 2021



A comparison of Annex Figure 1 and Annex Figure 2, on average labour earnings, shows the lowest income is concentrated in the northern and north-eastern regions, and the highest in the south-eastern and southern ones. This reveals the great income disparity between black and white people in Brazil as will be further explored.

Annex Figure 2: Average labour earnings (proportionate to the monthly minimum wage) by state, first quarter of 2021

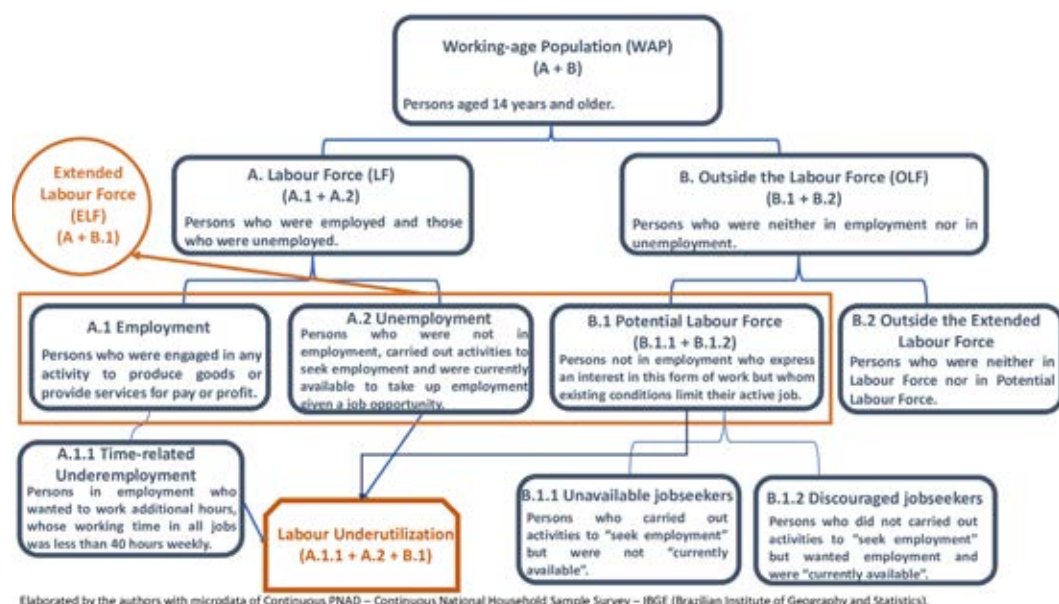


Note: The minimum wage in Brazil was R\$1,100.00 in the first quarter of 2021, almost \$200.

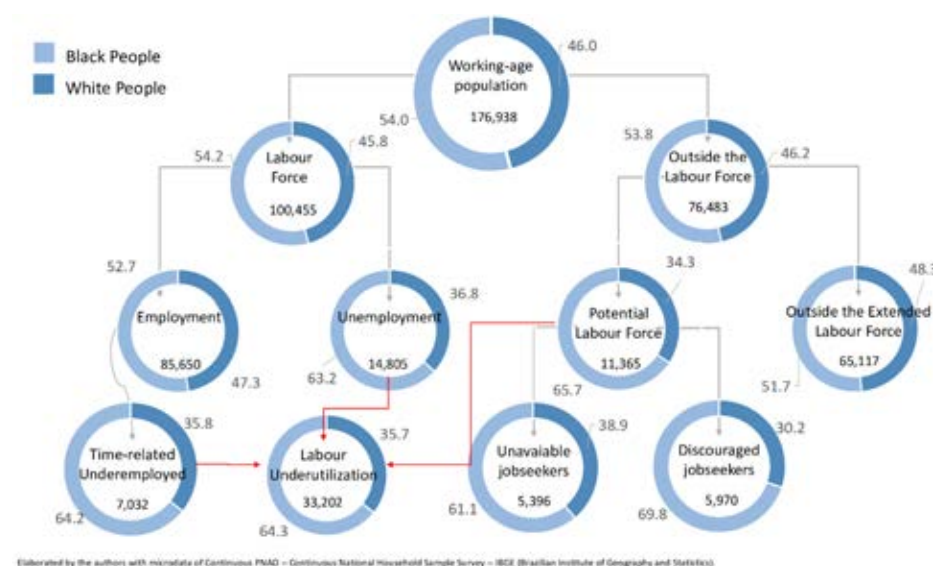
The black population and the labour market

To understand the characteristics of the black population in Brazil, this paper analyses the composition of the Brazilian working-age population and its categories (Annex Figure 3). The IBGE follows the international recommendation from International Labour Organization but it is worth showing the composition to avoid misinterpretation.

Annex Figure 3: Working-age population and its categories



Annex Figure 4: Black people (percentage) in the working-age population, first quarter of 2021



In Annex Figure 4, the black population comprises 54 percent of working-age people. Its share of the labour force (54.2 percent) is just a little higher than the share outside the labour force (53.8 percent).

This large share in the labour force is mainly due to the enormous portion of black people who are unemployed (63.2 percent), a much higher proportion than in the working-age population. The opposite occurs in employment: black people's portion (52.7 percent) is less representative than their share of the working-age population. The high share of black people in unemployment shows a more precarious insertion in the labour market than among white people. This is also evident in underemployment and labour underutilization numbers. The shares of black people in these two categories, at 64.2 percent and 64.3 percent, respectively, are much higher than those in the working-age and employment categories.

Linked to this, the black population shows a pronounced proportion of the potential labour force (65.7 percent), which is composed of unavailable jobseekers (61.1 percent) and discouraged jobseekers (69.8 percent).

In summary, looking into the underutilization, underemployment, unemployment and potential labour force categories, black people's participation in the Brazilian labour market is profoundly characterized by seeking work or more hours to work or better jobs. The white population has more participation, relatively, in the employment category and in the population outside the extended labour force, categories that entail more stable work and the will or choice for inactivity, respectively.

Considering the economic sector of activity and the earnings generated in those activities, presented in Annex Table 6,²⁷ black people are concentrated in smaller income ranges in all sectors. The great majority of people who earn up to the minimum wage is black (70.5 percent for those who earn up to half the minimum wage and 63.9 percent for those between half and full minimum wage). On the other hand, examining higher incomes, the share of black people significantly declines (21 percent between 10 and 20 times the minimum wage and 14.5 percent over 20 times the minimum wage).

Differences in earning are associated with sectors: black people are concentrated in labour-intensive sectors (such as construction and agriculture) as well as sectors with lower average incomes, while they only represent a small number of the group with higher average wages.

²⁷ Table 6 is a small version of Annex Table 23.

Annex Table 6: Black people (percentage) by activity sector and earnings range (proportionate to the monthly minimum wage), first quarter of 2021

	0 to 0.5	0.5 to 1	10 to 20	Over 20	TOTAL
Agriculture	75.4	62.8	13.5	14.7	58.8
Industry	64.1	63.4	23.2	10.2	49.6
Construction	78.6	69.8	24.8	3.9	64.3
Wholesale and retail services	67.5	64.0	14.8	29.6	52.6
Transport	68.8	59.7	46.8	0.0	53.5
Accommodation and food services	70.8	64.5	30.1	10.9	57.5
Information, real estate and support services activities	58.4	60.3	12.3	14.6	41.6
Public administration	70.9	66.6	29.5	23.6	49.6
Education, human health and social work services	63.5	65.7	20.6	7.9	47.2
Other services	69.8	58.4	11.5	20.0	54.7
Domestic services	70.9	65.4	0.0	0.0	65.2
Total	70.5	63.9	21.0	14.5	52.4

Source: Elaborated by the authors with microdata of the Continuous PNAD. Note: This paper considers the same sector terminology used in the Continuous PNAD sample survey but the terms presented here are a small version of those in the survey. Annex Table 22 clarifies the composition of each sector.

Annex Table 7²⁸ considers education level and a similar situation appears. Black people are the majority in all low and intermediate levels of education: illiterates (77.5 percent), incomplete or complete elementary schooling (62.8 percent and 58.1 percent, respectively), and incomplete and complete high schooling (62.1 percent and 56 percent, respectively). This is a strong element in defining the high pay gap between black and white people, since earnings rise along with education level.

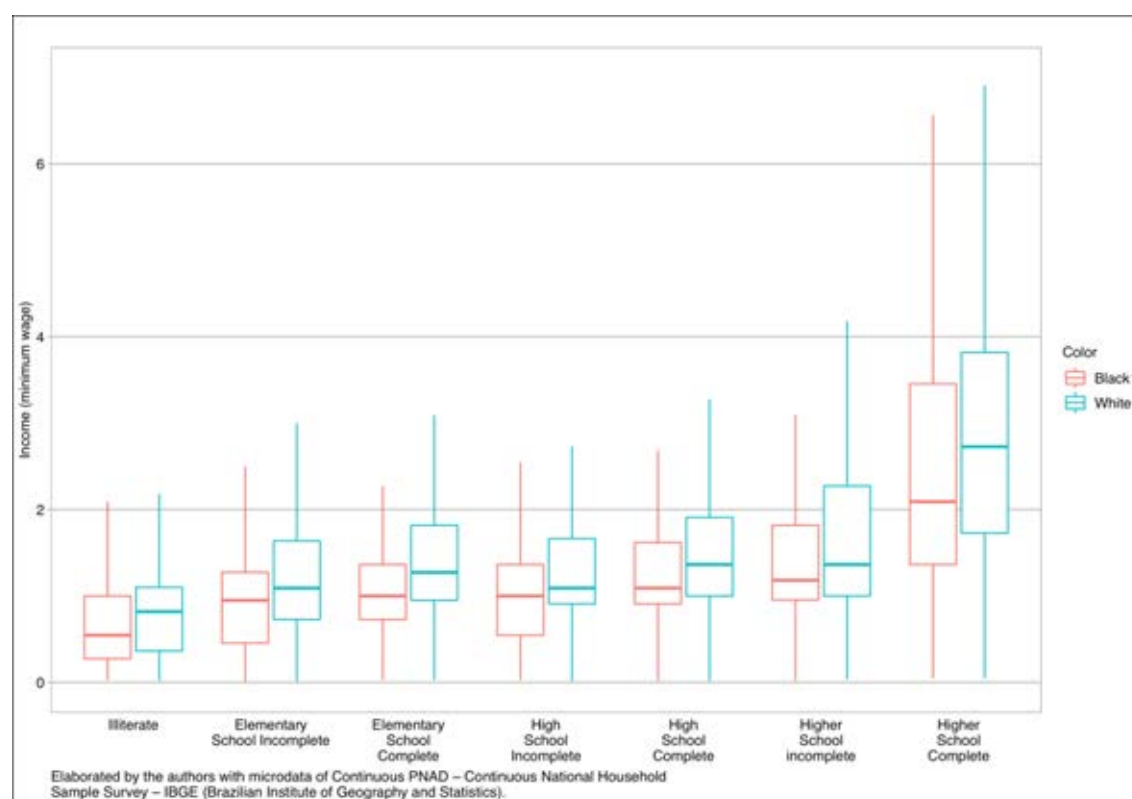
Additionally, Annex Figure 5 shows labour earnings for all levels of education and race. The median income is higher for white people in all levels of education, although at some levels, the median is almost the same, exhibiting a more equal division. Even so, the first quartile of income is higher for white people than for black people except for incomplete higher education, which is nearly the same.

²⁸ This table presents a small version of Annex Table 24 in the Statistical Annex.

Annex Table 7: Black people (percentage) by education level and earnings range (proportionate to the monthly minimum wage), first quarter of 2021

	0 to 0.5	0.5 to 1	10 to 20	Over 20	Total
Illiterate	81.1	81.1	0.0	0.0	77.5
Incomplete elementary school	70.8	67.7	30.9	59.7	62.8
Complete elementary school	71.1	61.6	25.4	1.9	58.1
Incomplete high school	74.9	64.9	31.1	0.0	62.1
Complete high school	70.8	64.8	24.1	41.0	56.0
Incomplete higher education	58.6	53.4	20.1	23.8	44.2
Complete higher education	46.2	50.6	20.5	12.8	35.8
Total	70.5	63.9	21.0	14.5	52.4

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Annex Figure 5: Labour earnings (proportionate to the minimum wage) by education level and race, first quarter of 2021

The third quartile is significantly higher for the white population at all levels (except the illiterate level), and the same happens to the maximum value. Consequently, the figure shows that the differences separating black and white people are greater at higher earnings and higher levels of education.

THE FOUR SOCIAL GROUPS IN 2021: LABOUR MARKET, EARNINGS AND EDUCATION LEVEL

This section presents labour market data on the intersectionality between race and sex from the first quarter of 2021, after one year of a profound economic crisis. The main objective is to highlight the great disparities among social groups in Brazil, especially between the most privileged one (white men) and the least privileged one (black women).

Levels of informality by sectors of activity

Differences among social groups can be observed through differences in the sectors where they are employed and the condition of their occupations (formal or informal²⁹). Annex Table 8 shows that the main sectors by number of people employed in 2021 were: wholesale and retail services, 18.4 percent of total employed, mostly formal occupations (63.3 percent); education, human health and social work services, 13.5 percent of total employed with 81 percent formality due to the high participation of public services in those activities; industry, 12.8 percent of total employed and 72 percent formality due to medium and large enterprises in this sector; information, real estate and support services activities, with 12.4 percent of total employed and 74.7 percent formality also due to medium and large enterprises; and agriculture with 10 percent of total employed and almost all occupations being informal (only 21.5 percent formality).

²⁹ Formal occupations are the sum of people formally employed by the private and public sectors (including public servants) and employer and own-account workers in firms that are formally registered. Informal occupations are the sum of people informally employed by the private or public sector, employer and own-account workers in firms that are not officially registered and contributing family workers.

Annex Table 8: Formal and informal employment (thousands and percentage) by activity sectors, first quarter of 2021

	Participation in total (%)			Participation by sector (%)		
	Formal	Informal	Total	Formal	Informal	Total
Agriculture	3.7	18.8	10.0	21.5	78.5	100.0
Industry	15.8	8.5	12.8	72.0	28.0	100.0
Construction	3.8	11.5	7.0	31.2	68.8	100.0
Wholesale and retail services	20.0	16.1	18.4	63.3	36.7	100.0
Transport	4.5	5.8	5.1	52.3	47.7	100.0
Accommodation and food services	3.5	6.2	4.6	44.1	55.9	100.0
Information, Real estate and support services activities	15.9	7.5	12.4	74.7	25.3	100.0
Public administration	8.1	2.5	5.7	81.8	18.2	100.0
Education, human health, and social work services	18.8	6.1	13.5	81.0	19.0	100.0
Other services	3.2	6.8	4.7	39.5	60.5	100.0
Domestic services	2.7	10.1	5.8	27.1	72.9	100.0
Undefined activities	0.0	0.1	0.1	44.6	55.4	100.0
Total	100.0	100.0	100.0	58.1	41.9	100.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

This employment structure changes if segmented by sex (Annex Tables 9 and 10). For men, education, human health and social work services declines in weight (6.1 percent of total employed). Construction is one of the main employment sectors (11.9 percent of total employed). For women, agriculture loses its importance (5 percent of total employed) and domestic services appears as one of the main employment sectors (12.2 percent of total employment). In the total, formality is higher for women (59.9 percent) than for men (56.8 percent), as women have a huge presence in education, human health and social work services where formality is very substantial. Men are more represented in construction and transport, where informality is large. Nevertheless, in most sectors, formality is greater for men (Annex Table 9).

Annex Table 9: Formal and informal employment (thousands and percentage) for women by activity sectors, first quarter of 2021

	Participation (%) total			Participation (%) by sector		
	Formal	Informal	Total	Formal	Informal	Total
Agriculture	1.3	10.4	5.0	15.8	84.2	100.0
Industry	10.1	10.0	10.1	60.2	39.8	100.0
Construction	0.8	0.4	0.6	75.9	24.1	100.0
Wholesale and retail services	19.0	16.2	17.9	63.7	36.3	100.0
Transport	1.5	0.7	1.2	75.5	24.5	100.0
Accommodation and food services	4.3	9.2	6.3	41.1	58.9	100.0
Information, Real estate and support services activities	15.7	7.2	12.3	76.5	23.5	100.0
Public administration	7.0	2.8	5.3	78.7	21.3	100.0
Education, human health, and social work services	31.3	10.8	23.1	81.3	18.7	100.0
Other services	3.8	9.5	6.0	37.2	62.8	100.0
Domestic services	5.2	22.7	12.2	25.6	74.4	100.0
Undefined activities	0.0	0.1	0.0	38.0	62.0	100.0
Total	100.0	100.0	100.0	59.9	40.1	100.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

By comparing the four social groups (black women, black men, white women, and white men), more changes in occupational structure can be observed (Annex Table 11). Defining a 10 percent share as indicating a main employment sector, it is possible to see significant differences. Wholesale and retail services is the only sector that appears in all four groups. It is the first main employer for black and white men and the second main employer for black and white women. Black women's occupations are concentrated in only three sectors (education, human health and social work services, 21.7 percent; wholesale and retail services, 18.3 percent; and domestic services, 15.9 percent). Domestic services are a main employment sector only for black women. For white women, besides education, human health and social work services, 24.5 percent, and wholesale and retail services, 17.5 percent, two other sectors show up: industry, 10.5 percent, and information, real estate and support services activities, 15.1 percent (Annex Table 11).

Annex Table 10: Formal and informal employment (thousands and percentage) for men by activity sectors, first quarter of 2021

	Participation (%) total			Participation (%) by sector		
	Formal	Informal	Total	Formal	Informal	Total
Agriculture	5.6	24.8	13.9	23.0	77.0	100.0
Industry	20.4	7.5	14.8	78.1	21.9	100.0
Construction	6.1	19.4	11.9	29.3	70.7	100.0
Wholesale and retail services	20.8	16.0	18.7	63.1	36.9	100.0
Transport	7.0	9.3	8.0	49.7	50.3	100.0
Accommodation and food services	2.9	4.0	3.3	48.4	51.6	100.0
Information, Real estate and support services activities	16.0	7.7	12.4	73.2	26.8	100.0
Public administration	9.0	2.3	6.1	83.9	16.1	100.0
Education, human health, and social work services	8.6	2.8	6.1	79.9	20.1	100.0
Other services	2.7	4.9	3.7	42.4	57.6	100.0
Domestic services	0.7	1.2	0.9	42.3	57.7	100.0
Undefined activities	0.1	0.1	0.1	48.6	51.4	100.0
Total	100.0	100.0	100.0	56.8	43.2	100.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

For black men, five sectors come up with a 10 percent share: wholesale and retail services, 18.6 percent, agriculture, 15.4 percent, construction, 14.2 percent, industry, 13.9 percent, and information, real estate and support services activities, 10 percent. For white men, construction does not emerge as a main employment sector (9.1 percent), since four other sectors present higher shares in total employment for them—wholesale and retail services, 18.9 percent, industry, 16 percent, information, real estate and support services activities, 15.3 percent, and agriculture, 12.1 percent (Annex Table 11).

Annex Table 11: Formal and informal employment (thousands) by activity sectors, sex and race, first quarter of 2021

	Black Women			Black Men			White Women			White Men		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
Agriculture	1.3	9.8	5.2	6.0	25.3	15.4	1.3	11.2	4.8	5.3	24.0	12.1
Industry	9.3	10.0	9.6	20.2	7.2	13.9	10.7	10.0	10.5	20.6	7.9	16.0
Construction	0.9	0.3	0.6	6.9	22.0	14.2	0.7	0.5	0.7	5.4	15.4	9.1
Wholesale and retail services	19.6	16.7	18.3	20.7	16.4	18.6	18.5	15.6	17.5	21.0	15.3	18.9
Transport	1.3	0.7	1.0	7.4	8.9	8.1	1.6	0.7	1.3	6.7	10.1	7.9
Accommodation and food services	4.7	10.0	7.1	3.0	4.2	3.6	4.0	8.2	5.5	2.7	3.6	3.1
Information, Real estate and support services activities	13.8	4.2	9.4	14.4	5.4	10.0	17.2	11.2	15.1	17.6	11.3	15.3
Public administration	6.2	2.7	4.6	9.4	2.4	6.0	7.6	2.9	6.0	8.6	2.0	6.2
Education, human health, and social work services	32.1	9.4	21.7	8.3	2.1	5.3	30.7	12.6	24.5	8.9	4.0	7.1
Other services	3.5	10.0	6.5	2.8	4.8	3.8	3.9	8.8	5.6	2.7	4.9	3.5
Domestic services	7.3	26.1	15.9	0.9	1.2	1.0	3.5	18.2	8.5	0.4	1.3	0.8
Undefined activities	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

The share of formal occupations varies among social groups, especially between the black and white populations. Across sectors, black men exhibit the lowest share of formality, 51.3 percent, as a result of their large presence in construction, transport and agriculture, three sectors with a very high percentage of informality.

Black women have the second lowest share of formality (54.4 percent). This is due to their elevated occupation in the domestic services sector and its significant informality. But for all sectors with some prominence for black women, the share of their formality is one of the lowest compared with other social groups.

White women's share of formality is the second highest (65.5 percent) as a result of their elevated presence in education, human health and social work services and due to their percentage of formality in various sectors being higher than for black women and black men (for example, in the wholesale and retail services sector, the percentage of formality for white women is 69.3 percent, while for black women it is 58.3 percent and for black men it is 57 percent).

For white men, the percentage of formality is the highest (63.3 percent). This is due to much higher percentages than the other three groups in most sectors. For example, in industry, their formality is 81.7 percent, while for black men it is 74.7 percent, for white women, 67 percent and for black women, 52.8 percent.

Annex Table 12: Formal and informal employment (percentage) by activity sectors, sex and race, first quarter of 2021

	Black Women			Black Men			White Women			White Men		
	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal	Total
Agriculture	13.3	86.7	100.0	20.0	80.0	100.0	18.5	81.5	100.0	27.6	72.4	100.0
Industry	52.8	47.2	100.0	74.7	25.3	100.0	67.0	33.0	100.0	81.7	18.3	100.0
Construction	78.4	21.6	100.0	24.8	75.2	100.0	73.3	26.7	100.0	37.8	62.2	100.0
Wholesale and retail services	58.3	41.7	100.0	57.0	43.0	100.0	69.3	30.7	100.0	70.2	29.8	100.0
Transport	69.0	31.0	100.0	46.8	53.2	100.0	80.5	19.5	100.0	53.2	46.8	100.0
Accommodation and food services	35.7	64.3	100.0	42.6	57.4	100.0	48.4	51.6	100.0	56.6	43.4	100.0
Information, Real estate and support services activities	79.6	20.4	100.0	73.7	26.3	100.0	74.6	25.4	100.0	72.9	27.1	100.0
Public administration	73.1	26.9	100.0	80.3	19.7	100.0	83.1	16.9	100.0	88.1	11.9	100.0
Education, human health, and social work services	80.3	19.7	100.0	80.8	19.2	100.0	82.2	17.8	100.0	79.2	20.8	100.0
Other services	29.7	70.3	100.0	37.7	62.3	100.0	46.0	54.0	100.0	48.4	51.6	100.0
Domestic services	25.1	74.9	100.0	45.9	54.1	100.0	26.5	73.5	100.0	36.5	63.5	100.0
Undefined activities	36.2	63.8	100.0	43.1	56.9	100.0	40.4	59.6	100.0	57.5	42.3	100.0
Total	54.4	45.6	100.0	51.3	48.7	100.0	65.5	34.5	100.0	63.3	36.7	100.0

Source: Elaborated by the authors with microdata of the Continuous PNAD.

In sum, the level of formality is unevenly distributed, with penalties imposed on women in some respects (their high weight in domestic work services) and for black people in others (higher informality in all major sectors). At the intersection of gender and race, black women face the most fragile conditions related to formality and activity sectors.

Categories of the labour market: employment and unemployment conditions

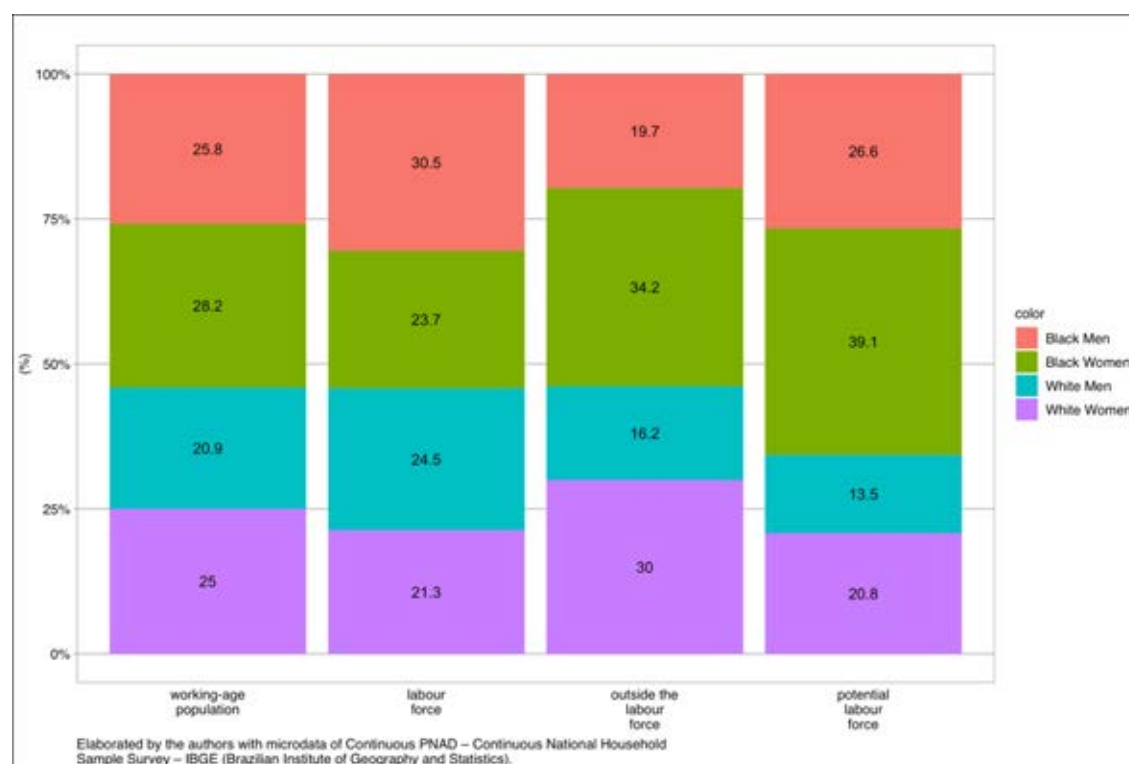
Black women, the biggest social group in Brazil compared the other three social groups, are 28.2 percent of the working-age population but only 23.7 percent of the labour force (Annex Figure 6); this increases their share of people outside the labour force (34.2 percent). In the category outside the labour force, a significant number of women do not desire to be in this condition as they would like to be working or seeking work. This is the situation of people in the potential labour force.

The presence of black women in the potential labour force is even higher (39.1 percent). To compare, white men exhibit the opposite situation. They are 20.9 percent of the working-age population but 24.5 percent of the labour force and only 13.5 percent of the potential labour force. This indicates that white men have more possibilities to work and better financial conditions to seek work than black women.

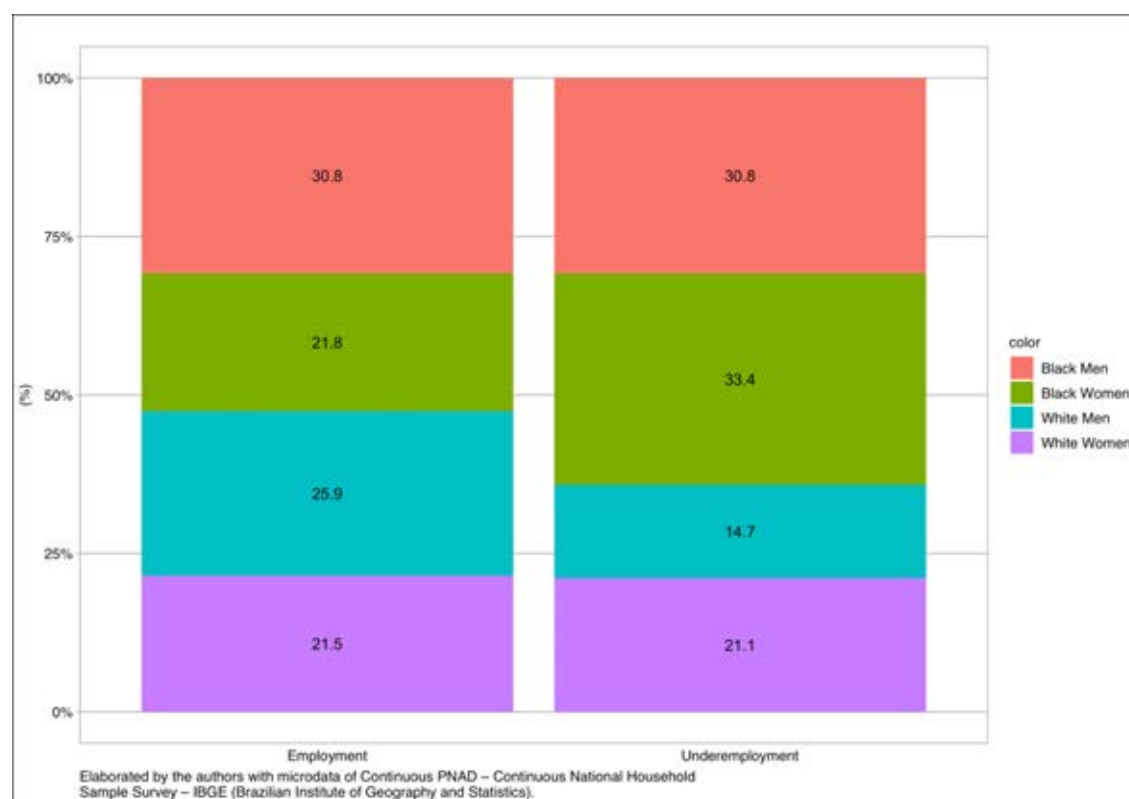
For white women, although their weight in the labour force (21.3 percent) is lower than in the working-age population (25 percent), they have relatively more financial options to be outside the labour force than black women, indicated by their relatively lower share in the potential labour force (20.8 percent) compared to black women and to their share in the working-age category (25 percent).

Comparable to white men, black men's insertion in the labour market presents a higher share in the labour market (30.5 percent) than in the working-age category (25.8 percent). This higher participation rate in the labour market, compared to the share of the working-age population, is a feature for men, black or white. At the same time, black men show a similar pattern to black women as their share of the potential labour force (26.6 percent) is higher than their working-age share (25.8 percent).

In sum, looking into the four social groups figures from a gender perspective, one can see women's lower activity in the labour market. Through the lens of race, the white population has better conditions to be outside the labour force, considering their relatively low share of the potential labour force.

Annex Figure 6: Working-age population (percentage) by sex and race, first quarter of 2021

Concerning employment categories (Annex Figure 7), black women exhibit the same proportions as white women (21.8 and 21.5 percent, respectively); both are much lower than black and white men's shares (30.8 percent and 25.9 percent, respectively) and lower than their shares in the working-age group. Black women appear to be the biggest group in time-related underemployment. They are 21.8 percent of employed people in Brazil but 33.4 percent of those underemployed, a percentage much higher than their weight in the working-age category. White men, again, are in a better condition as 25.9 percent of employed and only 14.7 percent of underemployed people. Again, black men share a gender specificity with white men, with a higher weight in employment (30.8 percent) than in the working-age group. As with black women, black men's share in underemployment (30.8 percent) is also relatively higher than their presence in the working-age population. Black men's share of underemployment is the same as their employment share, however, showing better conditions compared to black women.

Annex Figure 7: Employment and underemployment (percentage) by sex and race, first quarter of 2021

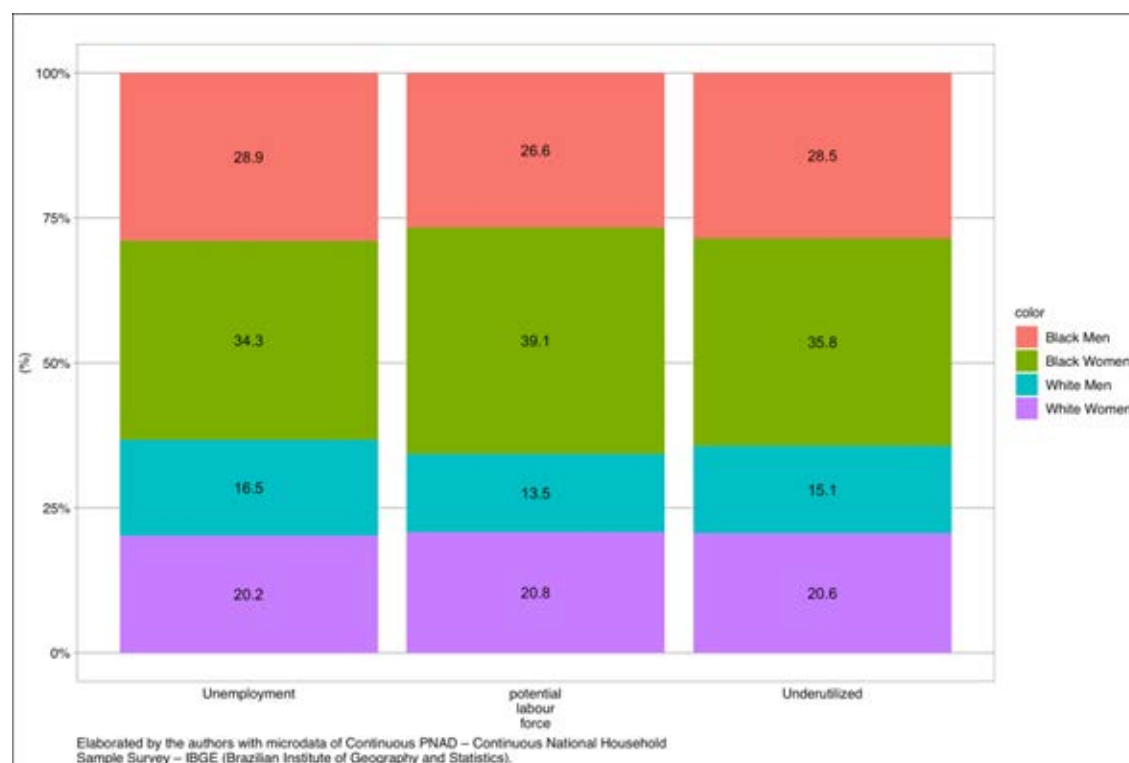
A high proportion of black women is evident in other labour market categories that comprise the underutilization rate. They are 34.3 percent of the unemployed and 39.1 percent of the potential labour force (Annex Figure 8). In total, they represent 35.8 percent of the underutilized labour force, followed by 28.5 percent of black men, 20.6 percent of white women and 15.1 percent of white men. Black women's and black men's share in underutilization is higher than their participation in the working-age category. This varies from the white groups, exhibiting a marked racial feature.

White men, with better conditions for being employed, have a high labour force participation rate (66.5 percent) and the lowest underemployment (4.7 percent), unemployment (9.9 percent) and underutilization rates (19.2 percent), as in Annex Figure 9. Black women's worse conditions are expressed by a 12.6 percent underemployment rate, 21.4 percent unemployment rate and 42.1 percent underutilization rate. Black women's underutilization rate is astonishing: It means that almost half of black women in Brazil were demanding work or more hours of work in 2021.³⁰ This number indicates a troubling situation for this huge

³⁰ Black women's and black men's underutilization rates were very elevated before the pandemic as will be explored in the following section. But this precariousness was exacerbated in 2021. It is associated, among other factors, with the insufficiency of the emergency aid programme in reaching some vulnerable groups, including black women.

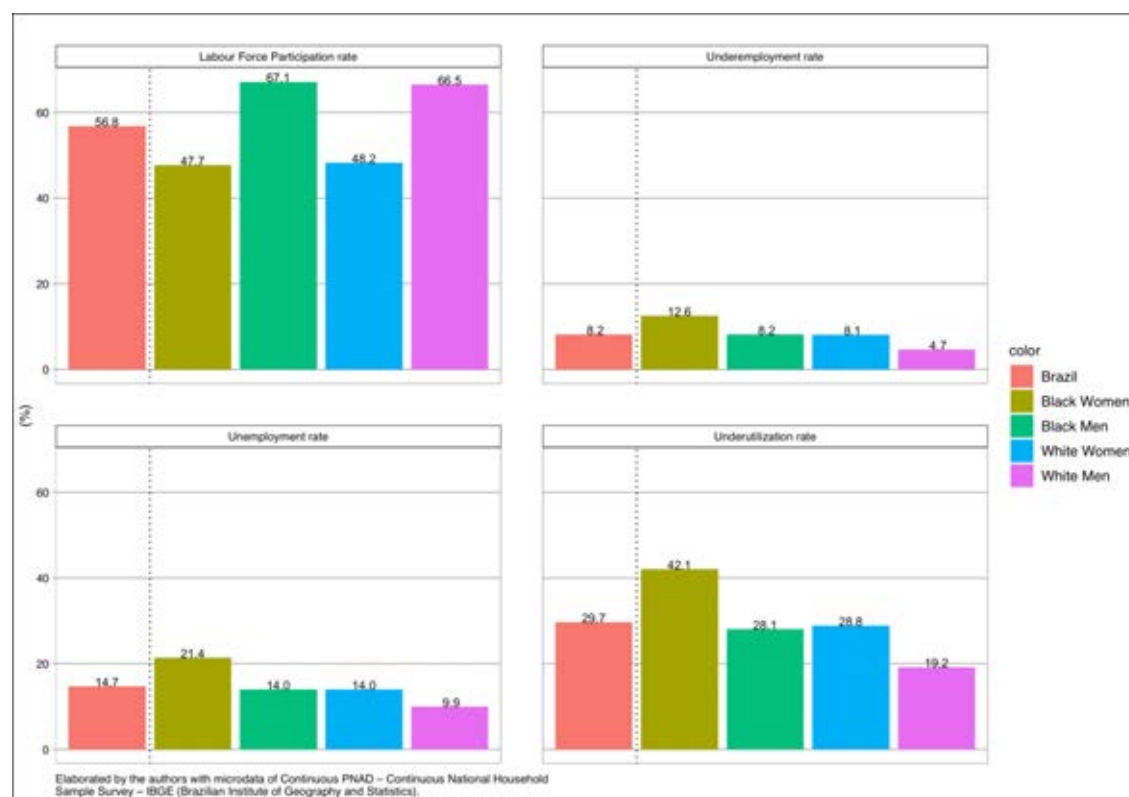
contingent of women and for millions of children and other people who depend on them. Black women are primarily responsible for 27.4 percent of households in Brazil.

Annex Figure 8: Unemployment, underutilized and potential labour force rates (percentage) by sex and race, first quarter of 2021



These figures suggest some clear aspects of intersectionality. For example, while black women and white women share a high level of inactivity (or low participation in the labour force relative to their share of the working-age population)—and a more profound analyses should link this dimension with the sexual division of labour and women’s unfair share of domestic and care work—black women and black men both are prominent on labour market indicators showing low payment and worse occupational positions, such as those that comprise the underutilization categories. This stems from a perverse system of racial discrimination in Brazil.

Annex Figure 9: Labour force participation, underemployment, unemployment and underutilization rates (percentage), first quarter of 2021



To better understand the poor conditions for black women's employability, Annex Table 13 shows the categories of employment positions considered in the Continuous PNAD. It reveals the quite peculiar conditions in Brazilian employment and the structure of labour legislation.

Annex Table 13: Categories of employment in the Continuous PNAD

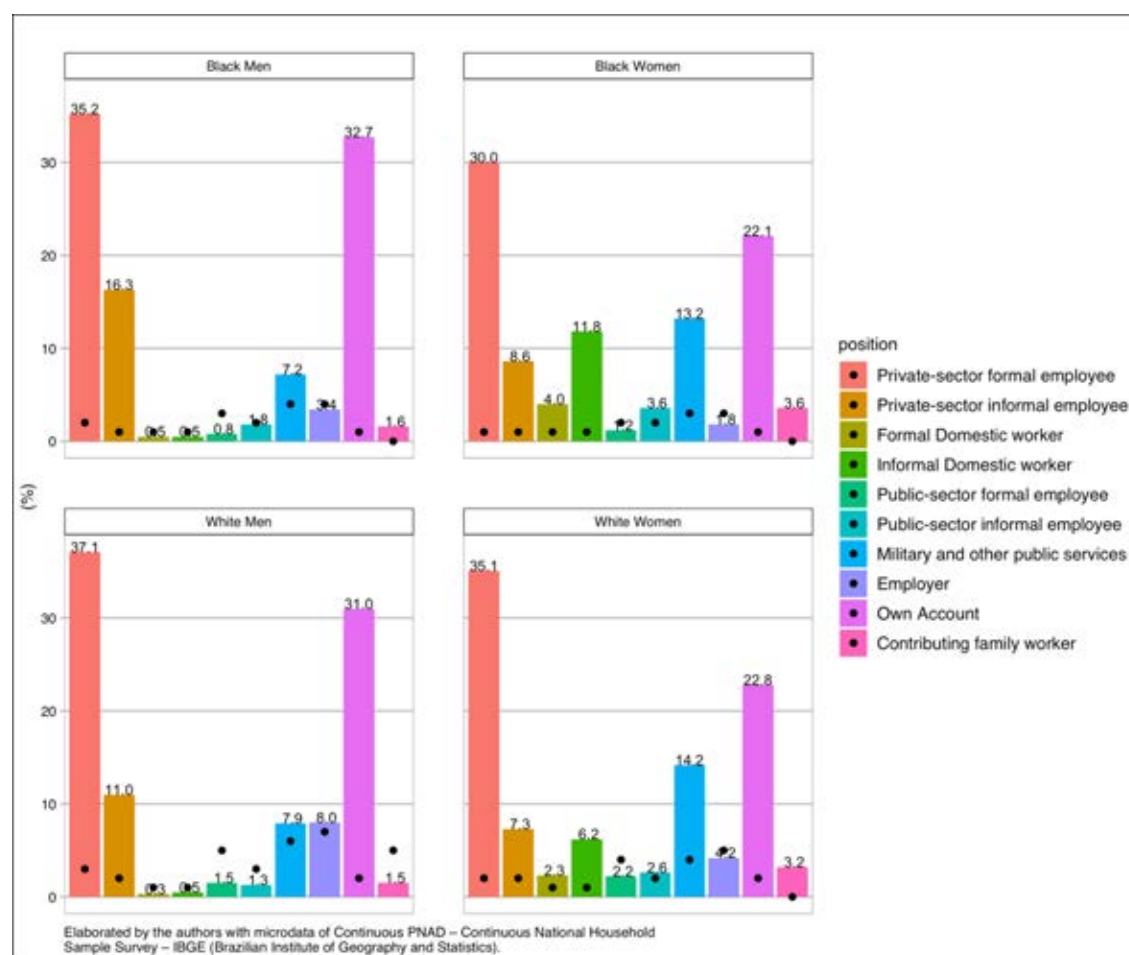
Category	Meaning
Private-sector formal employee	Person who worked for an employer in the private sector (individual or legal entity) under labour and social security legislation.
Private-sector informal employee	Person who worked for an employer in the private sector (individual or legal entity) without labour and social security legislation support.
Formal domestic worker	Person who worked providing paid domestic service in cash or benefits, in one or more private households, under labour and social security legislation.
Informal domestic worker	Person who worked providing paid domestic service in cash or benefits, in one or more houses, without labour and social security legislation support.
Public-sector formal employee	Person who worked for the public sector employer under labour and social security legislation.
Public-sector informal employee	Person who worked for the public sector employer without labour and social security legislation support.
Military and other public services	Person employed in the military, naval and air forces and other kinds of public services activities under a specific public servant labour legislation.
Employer	Person who worked exploring their own enterprise, with at least one employee.
Own account	Person who worked exploring their own enterprise, alone or with a partner, without an employee.
Contributing family worker	Person who worked without monetary payments to help with the economic activity of family member.
Total	Employment

Source: Elaborated by the authors based on the Continuous PNAD.

Compared to other social groups, black women have an employment position structure that is highly affected by the high share of domestic work. Annex Figure 10 shows that 15.8 percent of all black women are domestic work employees, most of them (74.7 percent) informally employed. Since they are not officially registered, they do not have access to the labour and social security system. Domestic work occupations generate among

the worst remuneration. On average, one informal domestic worker earns 70 percent of the Brazilian monthly minimum wage. This is the average payment of more than 2 million black women or 11.8 percent of all black women employed. The average labour income in Brazil is already very low at 2.3 times the minimum wage. Looking at the ranges of average payments by conditions of employment (the black dots on Annex Figure 10) reveals that black women earn less than the Brazilian average remuneration in all categories, except the military and others in the public sector (three times the minimum wage, employing 13.2 percent of black women) and employers (3.3 times the minimum wage, just 1.8 percent of employed black women). Even where remuneration is above the Brazilian average labour income, it is half that earned by white men in the same occupational positions.

Annex Figure 10: Employment by sex and race (percentage) and average earnings (compared to the monthly minimum wage, in black dots), first quarter of 2021



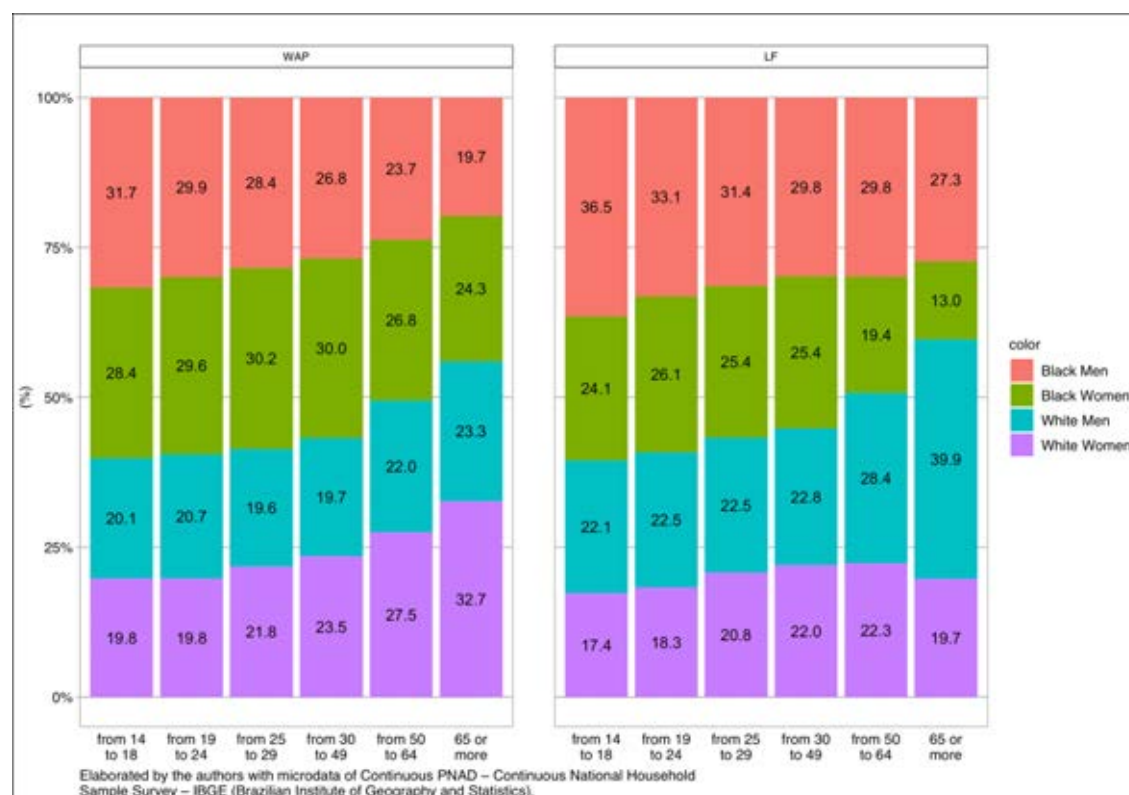
Employment by the private sector has the lowest weight for black women. The military and other public services have the highest share compared to other groups (except white women). This shows the high relevance of the public sector as an employer for black women.

Working-age categories disaggregated by sex, race and age cohorts

This section presents labour market indicators by age cohort to investigate changes and variations among social groups through different periods of life.

Given the lower life expectancy of the black population in Brazil, Annex Figure 11 shows a diminishing share of black people in the working-age population as the age range increases, especially black men. This group is 31.7 percent of the working-age population aged 14 to 18 but only 19.7 percent of those aged 65 and above. The same happens with black women. They are 28.4 percent of the working-age population aged 14 to 18 and 24.3 percent of those aged 65 and above.

Annex Figure 11: Working-age population and labour force (percentage) by sex and race, first quarter of 2021



The proportion of black men in the labour force at lower age ranges (from 14 to 24 years old) is the highest relative to other groups and greater than their share of the working-age group. For example, black men are

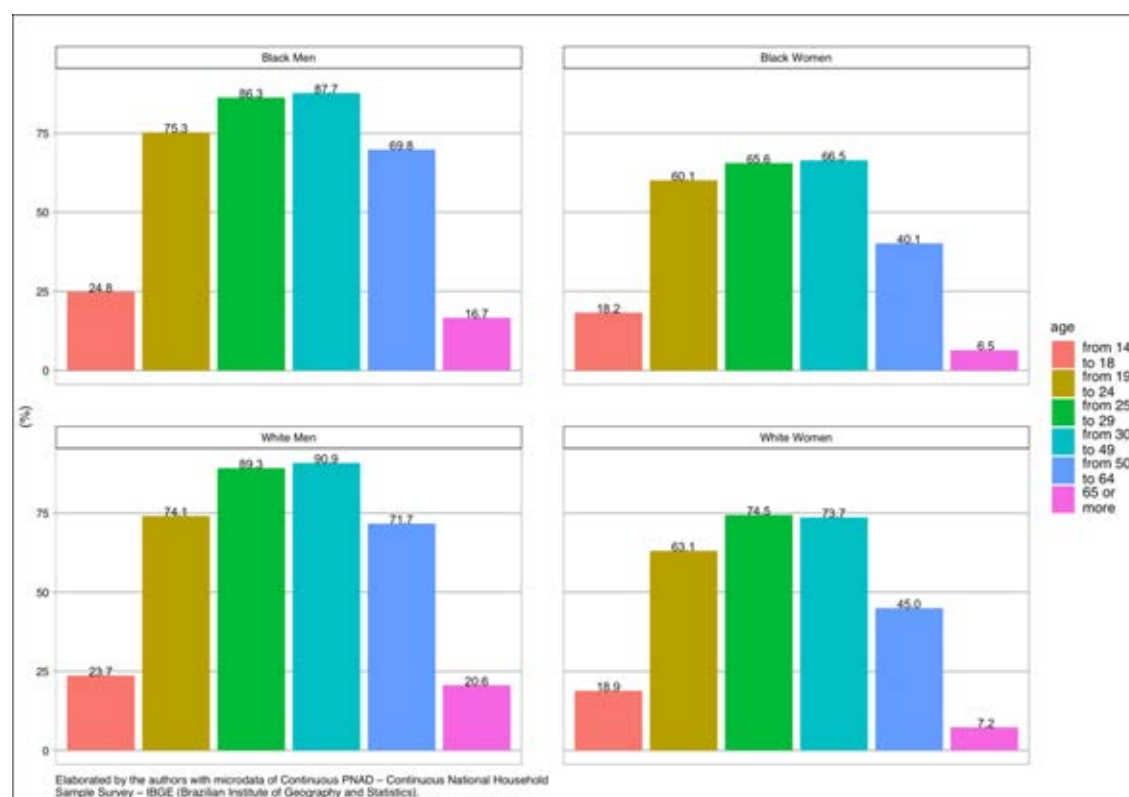
29.9 percent of the working-age population aged 19 to 24 and 33.1 percent of the labour force in this range. White men also have greater participation in the labour force than their share of the working-age population. This can reveal the higher necessity of men (especially black men) to work sooner relative to women but it is also important to stress their availability and chances to do so. Many women in lower age cohorts may be unavailable to work or to seek work because of domestic duties. This is one reason why black women aged 19 to 24 represent 29.6 percent of the working-age population and just 26.1 percent of the labour force.

Verifying other obstacles to work or seeking work in upper age ranges, black women have a very low share of the labour force at ages 50 to 64 (19.4 percent) and above 65 years (13 percent) relative to their share of the working-age population in those age ranges (26.8 percent and 24.3 percent, respectively). In another extreme, exhibiting better conditions to sustain the capacity to work until later ages, white men are 23.3 percent of the working-age population and 39.9 percent of the labour force above age 65.

For all ages, black women's activity rates are lower than those of other groups. As explored in the next section, one of most dramatic outcomes of the pandemic was women's unavailability to work (expressed by their remarkably high share of the unavailability category in the potential labour force, as shown earlier in this paper) and their lack of conditions to work (given the elimination of their jobs) or to seek work (illustrated by their high presence among discouraged jobseekers).

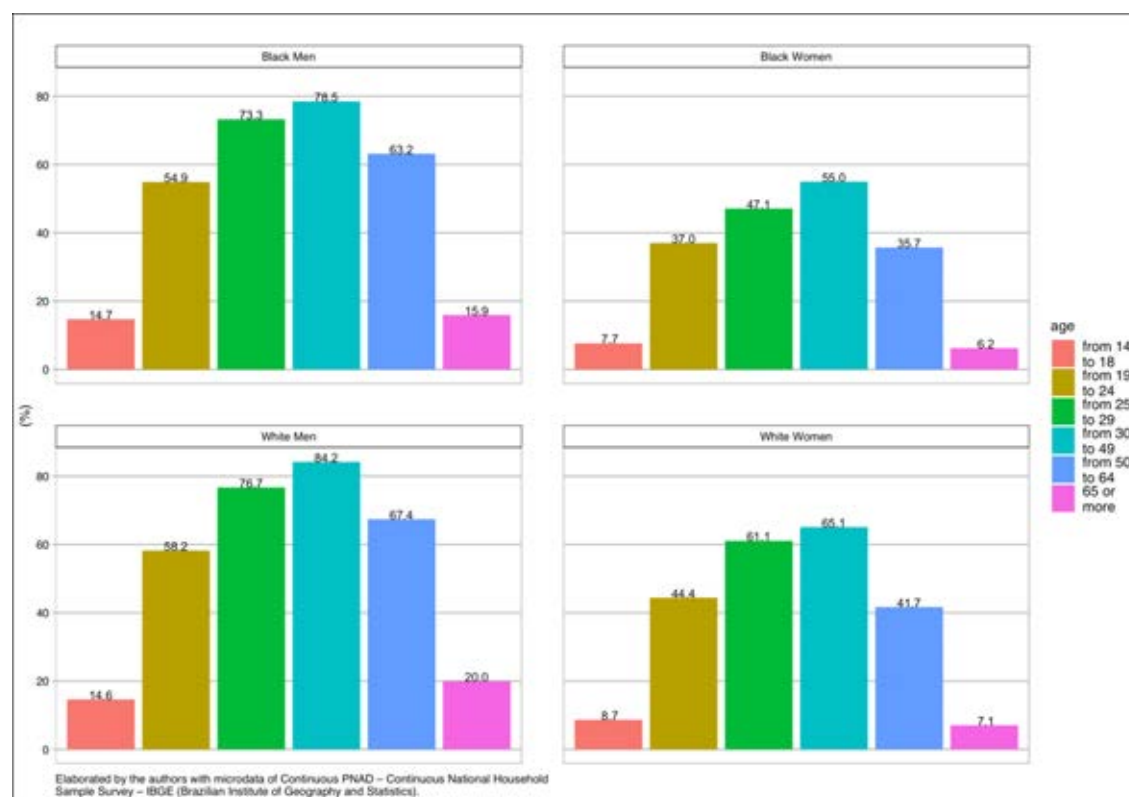
There is a significant gap between black women's labour participation rate in medium age ranges and the rates of black and white men at similar ages (Annex Figure 12). In the period with the highest potential capacity to work (ages 25 to 49), black women's labour participation rate is around 65.6 percent, white men's is 89.3 percent and black men's is 86.3 percent. White women's rate at 74.5 percent is also high. This indicates the elevated dependency of black women on other people's income.

When it comes to employment level by sex, race and age, black women have lower rates in all age ranges, but the distance between them and other groups (especially white men) is bigger between ages 25 to 64. It is a huge problem if black women have a full potential to work yet cannot realize this due to more responsibilities to others, notably children and the elderly. Low levels of employment in the working-age period of life associated with gendered duties can generate strong vulnerabilities not just for black women but for those who depend on them. Risks include domestic violence and abuse in cases of dependency on a partner's income as well as a greater likelihood of children's labour.

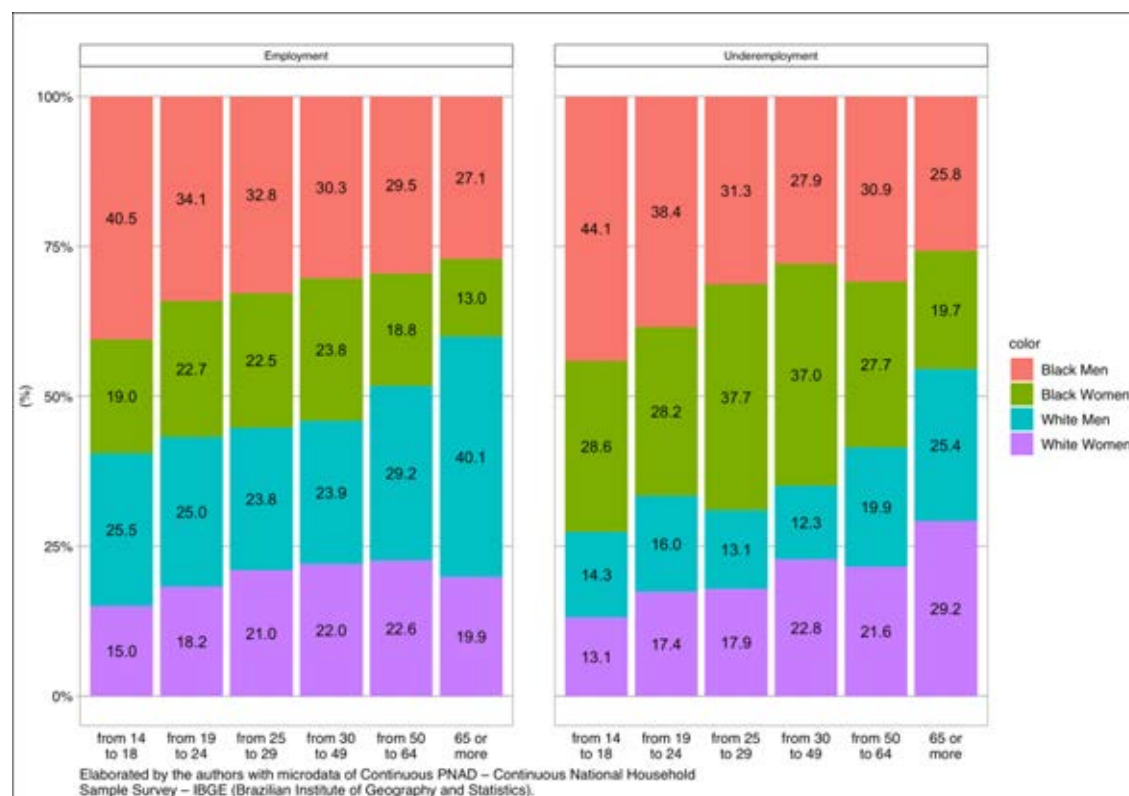
Annex Figure 12: Labour participation rate (percentage) by sex, race and age, first quarter of 2021

Black women's maximum employment level is reached in the 30 to 49 age range at 55 percent. Other groups have much higher rates at this stage: 65.1 percent for white women, 78.5 percent for black men and 84.2 percent for white men. More black women at this age are not working than are performing productive activities even though they are in the prime working period of life (Annex Figure 13).

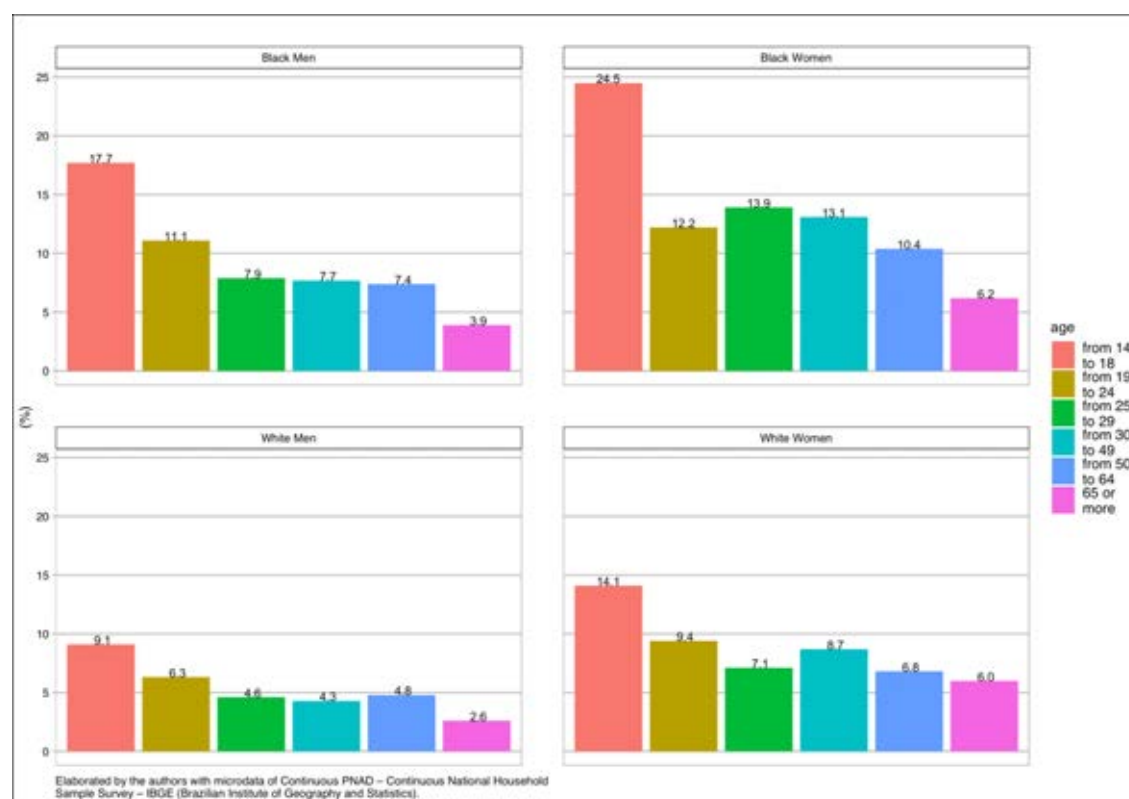
Annex Figure 13: Employment level (percentage), ratio between employment and working-age population by sex, race and age, first quarter of 2021



Annex Figure 14 presents another way to see the low occupational level of black women in Brazil. Although they are the major population group, they have the lowest share of total employment in all age ranges. At the same time, they are the only group whose share in underemployment is bigger than in employment, in all age ranges. Other groups have almost the same share in underemployment and employment (as is the case for black men and white women) or have less representation in underemployment than in employment (for white men). Among people aged 25 to 29, black women are 22.5 percent of the employed and 37.7 percent of the underemployed while white men are 23.8 percent of the employed and 13.1 percent of the underemployed.

Annex Figure 14: Employment and underemployment (percentage) by sex, age and race, first quarter of 2021

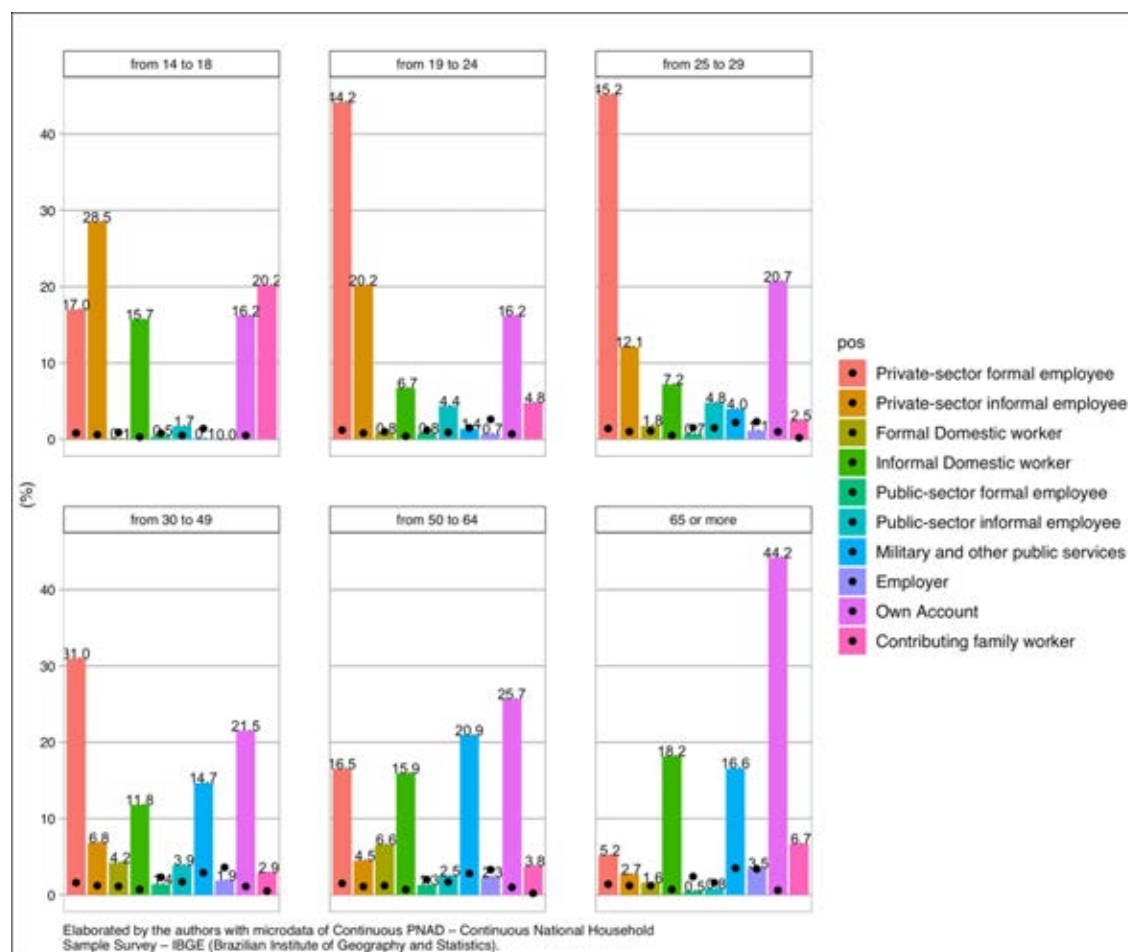
The underemployment rate (Annex Figure 15) is another way to observe the precariousness in black women's labour market conditions. As expected, black women have the highest rates in all age ranges; the number of underemployed women is greatest (24.5 percent) in the range aged 14 to 18. This is concerning because this period of life should be preserved for studies. Yet almost 25 percent of black women (children) employed at this age wish to work more hours. If their educational formation is damaged, underemployment rates will continue to be high later on and earnings will remain low. Across nearly the whole life cycle, black women have underemployment rates greater than 10 percent. The level declines only when they are 65 years old or more. In contrast, white men never reach this level of underemployment. Black men and white women only achieve this percentage in early ages (from 14 to 18 and from 19 to 24 for black men, and only from 14 to 18 for white women).

Annex Figure 15: Underemployment rate (percentage) by sex, race and age, first quarter of 2021

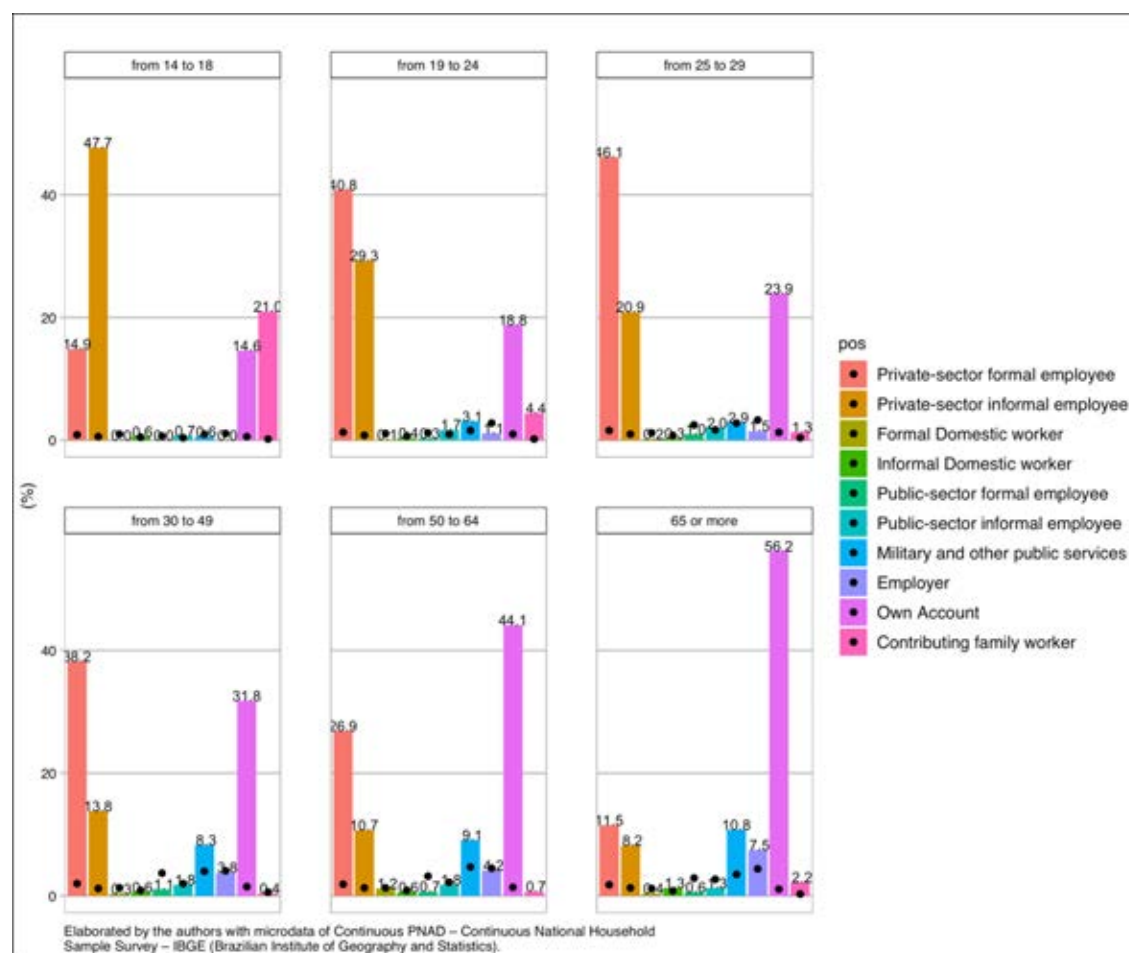
Looking into age cohorts and occupations in the labour market, it is possible to further highlight the precarity of black women's labour conditions, especially in terms of their high share of paid domestic work.

Even though black women (children) are not the major group employed in the 14 to 18 age cohort (18.9 percent), they are 68.8 percent of informal domestic workers (Annex Figure 32), which translates into 15.7 percent of all black women employed at this age (Annex Figure 15). There are 1.7 million school-age children above age 14 who are employed (Annex Table 25), most of them informal and formal employees of the private sector (38.8 percent and 21.1 percent, respectively, Annex Table 26), employees of their family (19.4 percent) and own-account workers (13.3 percent). In this age period, black men (children) are the largest proportion (40.4 percent, employed mainly informally by the private sector, 47.7 percent, and by their families, 21 percent), followed by white men (children) (25.4 percent, employed, mainly informally at 39.2 percent, and formally at 26.3 percent, by the private sector and by their families, 20.9 percent).

Annex Figure 16: Black women (percentage) by occupation and age range, and average earnings (compared to the monthly minimum wage, in black dots), first quarter of 2021

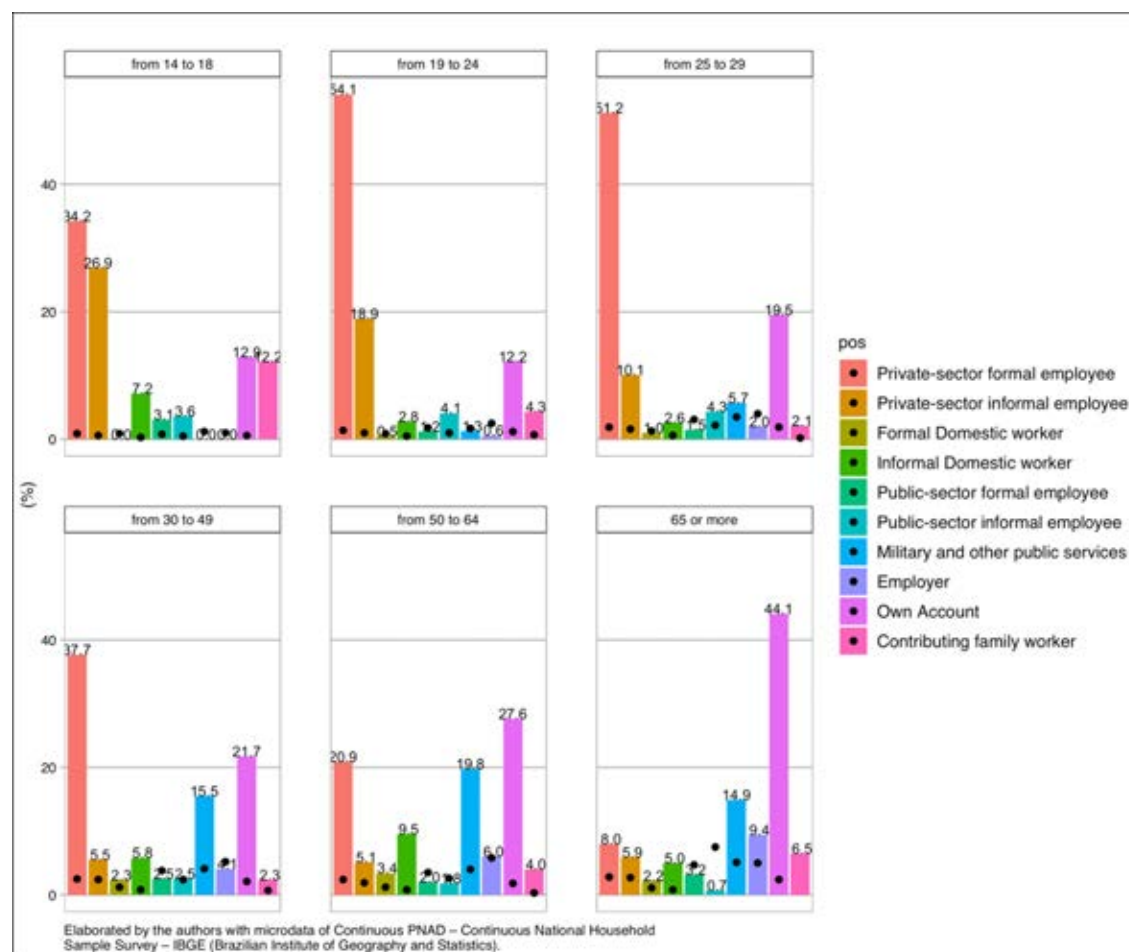


Annex Figure 17: Black men (percentage) by occupation and age range, and average earnings (compared to the monthly minimum wage, in black dots), first quarter of 2021

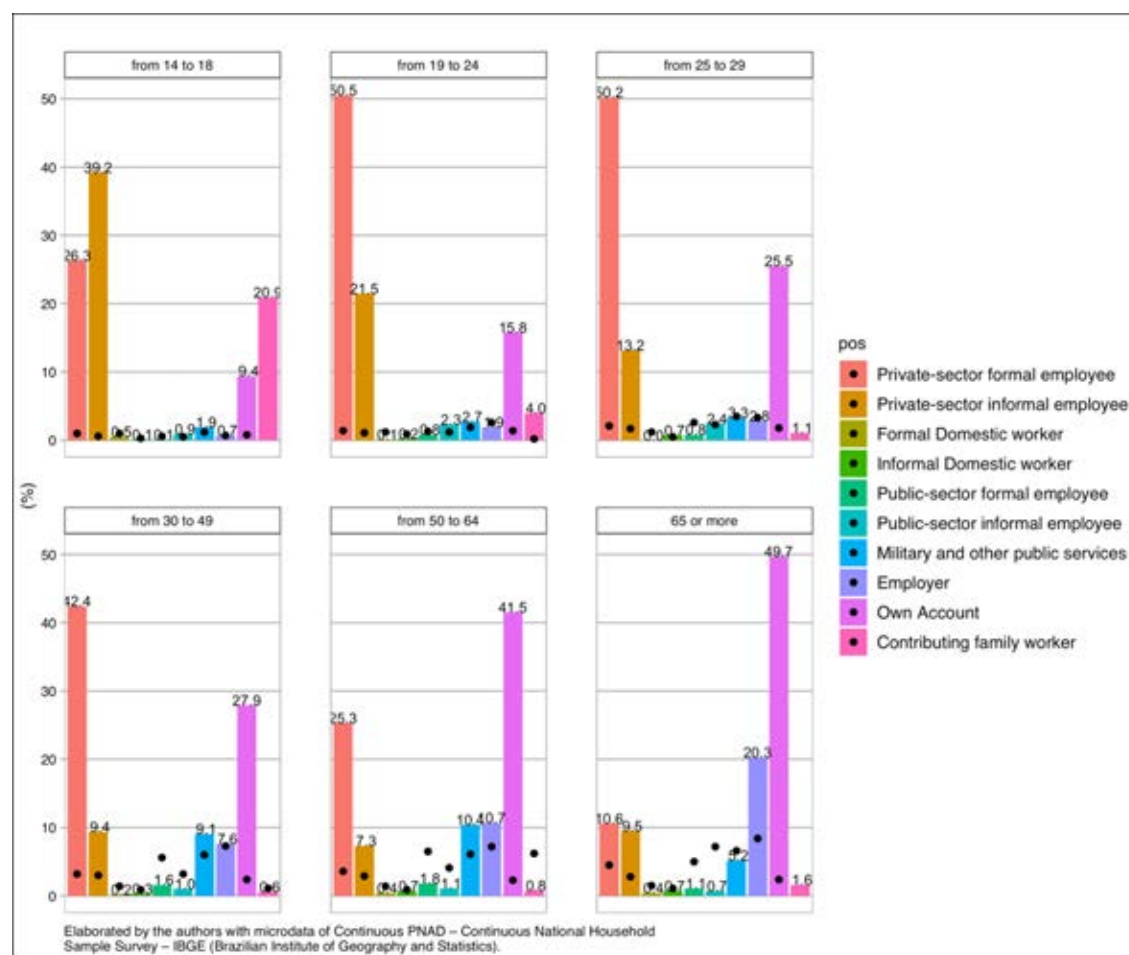


As a result of the immense degree of informality (illegality in most situations) and the high share of child workers contributing to their families without remuneration, the average payment in the age range from 14 to 18 is 60 percent of the monthly minimum wage. For informal domestic work (in which black women [children] are the majority), the average is 30 percent of the monthly minimum wage, around US\$2 a day. This situation drives very vulnerable and dramatic life conditions in the present and in future of those children, considering the impact on their mental and physical health, and their educational deficit compared to other children.

Annex Figure 18: White women (percentage) by occupation and age range, and average earnings (compared to the monthly minimum wage, in black dots), first quarter of 2021



Starting at 19 years, people are not fully prepared for the labour market but have a better chance to be employed in formal jobs. All social groups have a rising share of formal work positions in the age range from 19 to 24 (46.4 percent of total employment in this age cohort is in formal employment by the private sector, see Annex Table 26). This is true for black women at this age (44.2 percent of their employment is formal employment by the private sector, Annex Figure 16), but they also comprise 68.2 percent of all informal domestic workers in this age cohort (Annex Figure 33).

Annex Figure 19: White men (percentage) by occupation and age range, and average earnings (compared to the monthly minimum wage, in black dots), first quarter of 2021

In the age range from 19 to 24, earnings are lower (1.2 times the monthly minimum wage) than in older age ranges, explained by lower qualifications. Informal black women domestic workers earn still much less (half of the monthly minimum wage). The high proportion of black women in this category (and not just in this age range) helps explain why black women have the lowest remuneration in all age cohorts.

Once education and qualifications are complete, and (theoretically) with more time available for paid jobs and work positions, more opportunities open and the occupational matrix is a little more diversified than at younger ages. Public service positions occupy a bigger share of work opportunities, especially for women as educators, nurses and doctors. While black women have advanced to work positions with higher remuneration, they still maintain a high proportion of domestic jobs. They occupy 61 percent and 56.1 percent of those informal and formal jobs, respectively (Annex Table 26). Those occupations represent 16.2 percent of work vacancies for black women (Annex Figure 15).

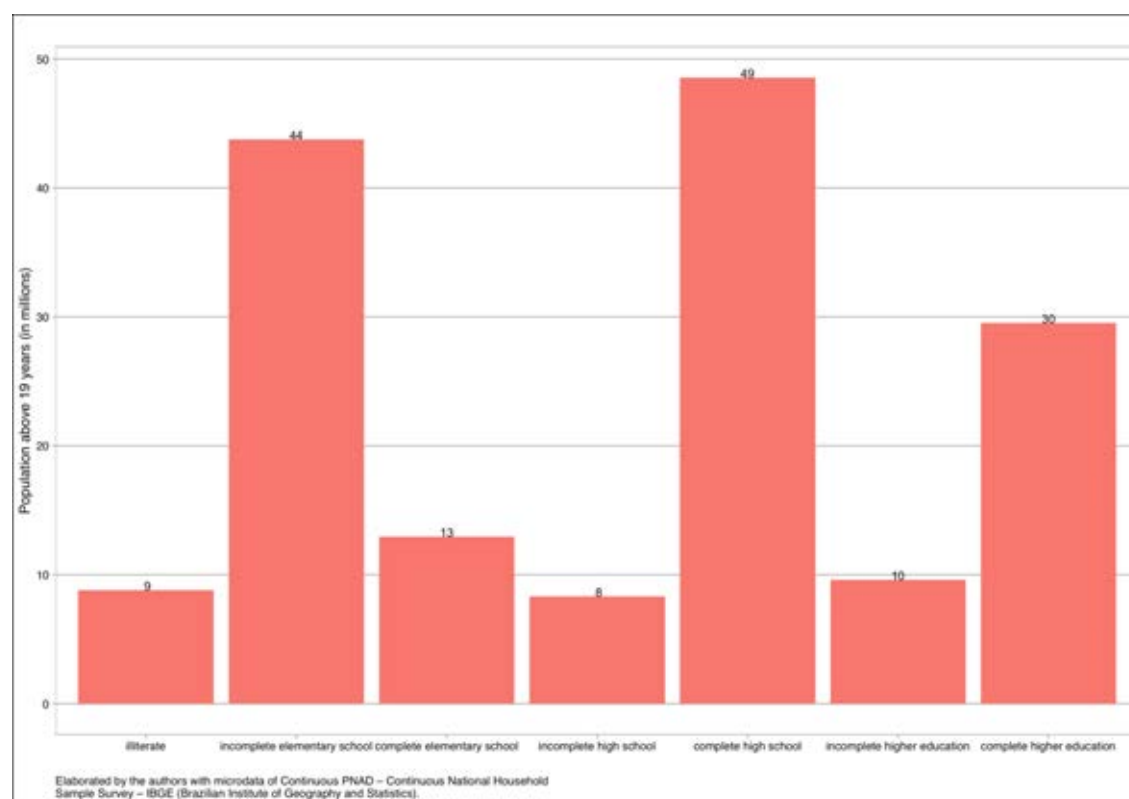
In Brazil, around 3 million older people still work at an age when they should be able to retire. Given better health conditions, white men comprise a larger share of older workers (40.1 percent). This age range shows the biggest difference between white men's income (4.4 times the monthly minimum wage) and black women's income (1.4 times the monthly minimum wage).

In all groups, but with more relevance for black men, own-account positions are the most important form of work remuneration (56.2 percent for black men, Annex Figure 17; 49.7 percent for white men, Annex Figure 19; 44.2 percent for black women, Annex Figure 15; and 44.1 percent for white women, Annex Figure 18). In an economic crisis, many young and adult relatives begin to depend on other family members, including parents, who must complement the household or extended family income. Considering the narrow labour market for the elderly, own-account activities remain among the few options, even though this work can generate low remuneration (as illustrated by black women's own-account earnings of only 60 percent of the monthly minimum wage on average).

Working-age categories by race, gender and education level

In analysis of the labour market by education level, it is important to stress that the whole working-age population is not considered, only those people aged 19 or older. This choice was made to guarantee a more trustworthy investigation into the education levels of people in the labour market, as from 14 to 18 years old, people would not have more than a high school education. In Brazil, education entails nine years of the elementary level (beginning around age 6) and then three years of high school. By age 18, people are expected to end school education and attend universities or technical education institutions.

Annex Figure 20 shows that Brazil still has a huge contingent of adults with incomplete elementary schooling (44 million) although most adults have a high school degree (49 million) or incomplete and complete higher education degrees (40 million).

Annex Figure 20: Population above age 19 (millions) by education level, first quarter of 2021

Given a historic deficit in school attendance in Brazil, especially for older people, illiteracy is still relevant for people above 19 years old. A significant contingent of adults has an incomplete elementary school education (Annex Table 14). The greater number of people with incomplete elementary school is above 30 years old, thanks to the establishment of the Law of Directives and Bases in 1996, which made schooling mandatory.³¹ In 2006, the law was altered to include children at 6 years old. As changes started to take effect in the late 1990s, the number of illiterate people or people with incomplete elementary schooling began to decline under age 30.

Social and economic positions may engender different conditions to access education in Brazil (Annex Figure 21). Among the black population, black men have a higher proportion of low education levels compared to their population share. They are 25.3 percent of the population above 19 years old, 33.9 percent of the illiterate group and 29.9 percent of the incomplete elementary school cohort. They have very low participation in the complete higher education group (13.3 percent).

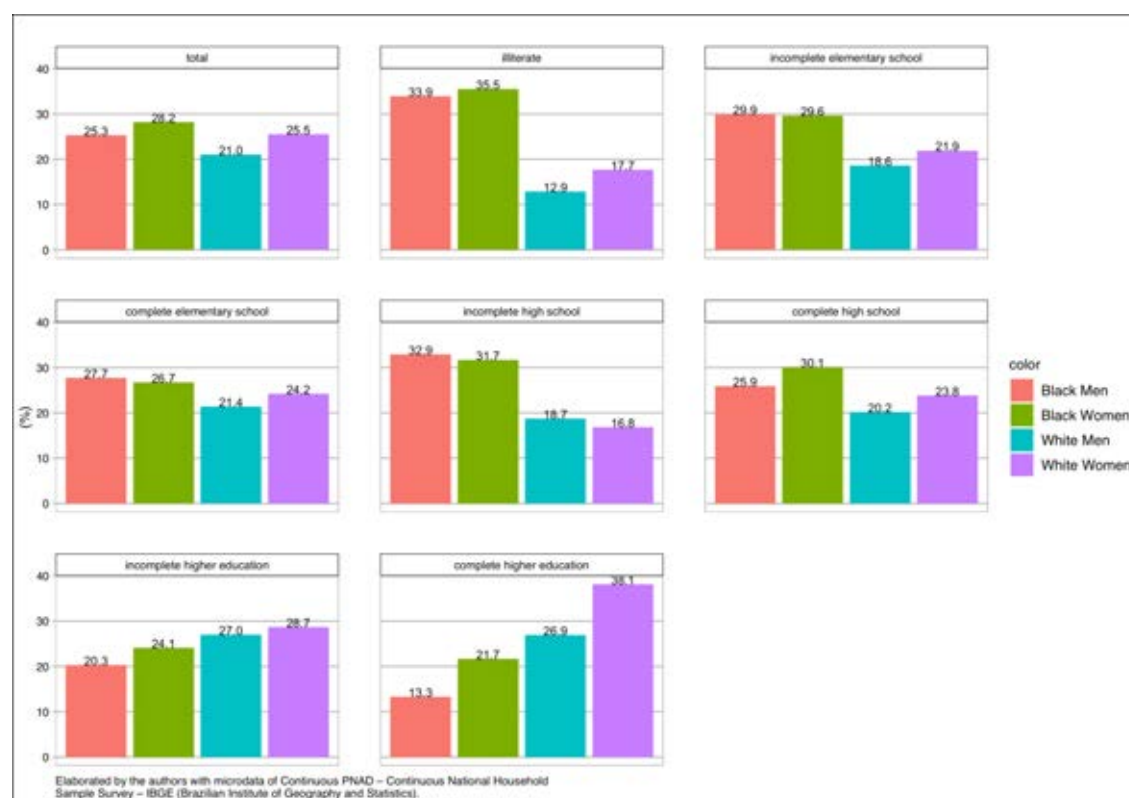
Annex Table 14: Population above age 19 (thousands) by education level and age range, first quarter of 2021

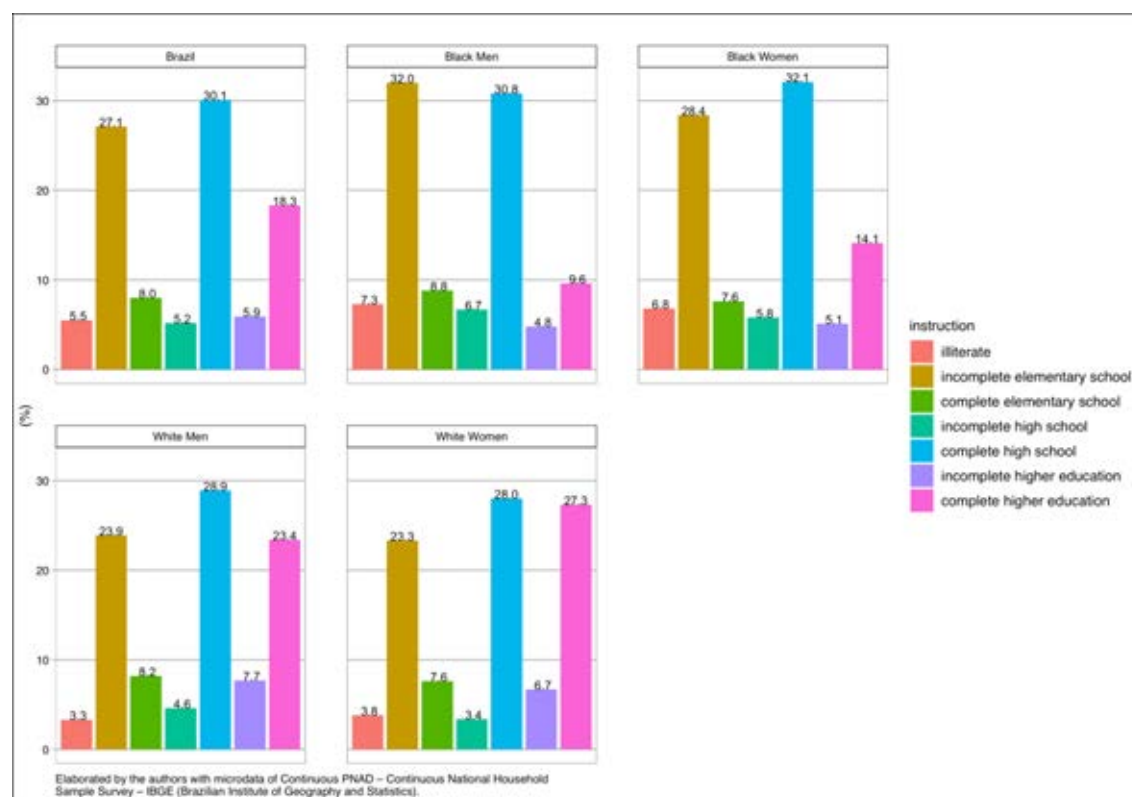
³¹ UNICEF 2015.

education	from 19 to 24	from 25 to 29	from 30 to 49	from 50 to 64	65 or more	total
illiterate	143	140	1,498	2,409	4,613	8,804
incomplete elementary school	1,400	1,335	12,957	14,904	13,158	43,753
complete elementary school	954	943	4,700	4,108	2,257	12,962
incomplete high school	2,074	1,093	3,505	1,241	415	8,327
complete high school	8,400	5,334	21,260	9,942	3,617	48,553
incomplete higher education	3,918	1,493	2,933	857	402	9,603
complete higher education	1,284	3,202	14,723	7,015	3,297	29,522

Source: Elaborated by the authors based on the Continuous PNAD.

Annex Figure 21: Population above age 19 (percentage) by education level, race and sex, first quarter of 2021



Annex Figure 22: Population above age 19 (percentage) by race, sex and education level, first quarter of 2021**Annex Table 15: Labour participation rate (percentage) by education level, race and sex, first quarter of 2021**

education		Black Women	Black Men	White Women	White Men	total
illiterate		11.9	34.0	8.1	23.2	20.2
incomplete elementary school		31.0	62.6	26.0	54.2	43.7
complete elementary school		46.7	75.0	34.7	68.0	56.2
incomplete high school		53.6	80.3	55.3	80.8	67.7
complete high school		62.3	83.2	56.0	79.2	69.6
incomplete higher education		65.0	78.7	63.5	72.7	69.4
complete higher education		77.1	86.4	71.9	81.2	77.5
Total		50.5	72.2	50.4	70.5	60.1

Source: Elaborated by the authors based on the Continuous PNAD.

White women (Annex Figure 21) are 25.5 percent of the total population above age 19, 17.7 percent of the illiterate cohort and 38.1 percent of the complete higher education group. Among people above age 19 in general, 18.3 percent have a completed higher education degree, while the share for white women is 27.3 percent (23.4 percent for white men, 14.1 percent for black women and 9.6 percent for black men, Annex Figure 22). White men's level of education is worse than for white women but better than for black women.

Sufficient education to advance in the labour market requires complete high school or higher education (complete and incomplete). This has been achieved by 51.3 percent of black women, 45.2 percent of black men, 62 percent of white women, and 60 percent of white men above age 19 (Annex Figure 24).

Annex Table 16: Employment rate (percentage) by education level, race and sex, first quarter of 2021

education		Black Women	Black Men	White Women	White Men	total
illiterate		10.7	30.9	7.2	20.8	18.2
incomplete elementary school		24.8	55.0	22.8	50.0	38.1
complete elementary school		37.2	65.5	29.4	62.6	48.6
incomplete high school		38.3	67.1	43.6	69.9	54.5
complete high school		47.7	71.2	47.1	70.5	58.3
incomplete higher education		50.4	65.2	51.2	64.3	57.4
complete higher education		68.1	80.5	66.0	76.0	64.1
Total		40.3	62.9	43.9	64.1	51.9

Source: Elaborated by the authors based on the Continuous PNAD.

Higher levels of education change the quality of a social group's insertion in the labour market. As depicted in Annex Table 15 and Annex Table 16, the higher the level of education, the higher the participation rate in the labour market and the higher the level of employment. To illustrate, with incomplete elementary school, the participation rate and level of employment are 43.7 percent and 38.1 percent for all four social groups. With complete higher education, those indicators were, respectively, 77.5 percent and 71.1 percent. A university degree is a powerful tool to actively participate in the labour market.

Nevertheless, the impact of educational enhancement on employability manifests differently across social groups. For black men, the group with the lowest education level, this deficit is not a boundary to their level of economic activity. They have higher rates of employment and labour participation and the lowest rate of inactivity (population outside the extended labour force). As observed in Annex Table 17, black men have a relatively high inactivity rate (ratio between people outside the extended labour force and working-age population) when they are illiterate (60.5 percent) and have incomplete elementary schooling (31 percent).

Even so, their inactivity rates are 30 percentage points lower than white women. Indeed, the economic participation of this group is enormous and even higher with better levels of education. Their extended labour force participation rate reaches around 85 percent with a high school degree and 90 percent with a university degree.

Annex Table 17: Labour inactivity rate (percentage) by education level, race and sex, first quarter of 2021

education		Black Women	Black Men	White Women	White Men	total
illiterate		83.9	60.5	90.1	73.3	75.7
incomplete elementary school		60.4	31.0	69.8	42.2	50.3
complete elementary school		42.8	19.0	60.2	28.2	37.3
incomplete high school		34.3	11.5	37.0	13.6	23.4
complete high school		28.2	11.2	37.0	17.2	23.7
incomplete higher education		26.1	14.9	30.2	22.4	24.0
complete higher education		17.7	10.8	24.7	16.4	19.1
Total		41.0	22.0	44.6	26.0	34.0

Source: Elaborated by the authors based on the Continuous PNAD.

Their activity is highly precarious, however (Annex Table 18). Black men, with a high extended labour force participation rate (ratio between people in the extended labour force and working-age population) in low education level cohorts (illiterate, 39.5 percent, and incomplete elementary school, 69 percent) and with low remuneration in the jobs achieved, are less likely to improve their qualifications and education levels. A vicious circle of low-quality jobs, poor remuneration and low qualification sets in.

For white men, the link between insertion in the labour market and education levels is almost the same but with some significant differences. Although white men also have a high participation rate in all education levels, their unemployment and underemployment rates are the lowest, and much inferior to black men's. This suggests that white men occupy better positions than black men, a group whose efforts to work or to get a job are as high as white men's.

Annex Table 18: Extended labour force participation rate (percentage) by education level, race and sex, first quarter of 2021

education	Black Women	Black Men	White Women	White Men	Total
illiterate	16.1	39.5	9.9	26.7	24.3
incomplete elementary school	39.6	69.0	30.2	57.8	49.7
complete elementary school	57.2	81.0	39.8	71.8	62.7
incomplete high school	65.7	88.5	63.0	86.4	76.6
complete high school	71.8	88.8	63.0	82.8	76.3
incomplete higher education	73.9	85.1	69.8	77.6	76.0
complete higher education	82.3	89.2	75.3	83.6	80.9
Total	59.0	78.0	55.4	74.0	66.0

Source: Elaborated by the authors based on the Continuous PNAD.

Better work conditions (or family assets/heritage positions) can also be illustrated by white men's higher inactivity compared to black men. While 10.8 percent of black men with higher educational degree are outside the extended labour force, the rate for white men is 16.4 percent (Annex Table 17). This inactivity may be seen in young white men from families with good financial conditions who can postpone their entrance to the labour market and pursue more studies, for example, or in elderly white men with a longer retirement than black men.

Annex Table 19: Unemployment rate (percentage) by education level, race and sex, first quarter of 2021

education	Black Women	Black Men	White Women	White Men	Total
illiterate	10.1	8.2	10.1	10.1	9.6
incomplete elementary school	19.9	12.1	12.4	7.9	12.8
complete elementary school	20.5	12.6	15.3	7.9	13.5
incomplete high school	28.5	16.5	21.1	13.5	19.5
complete high school	23.4	14.5	15.9	10.9	16.3
incomplete higher education	22.4	17.2	19.3	11.5	17.3
complete higher education	11.7	6.8	8.3	6.4	8.3
Total	20.1	12.9	12.9	9.1	13.7

Source: Elaborated by the authors based on the Continuous PNAD.

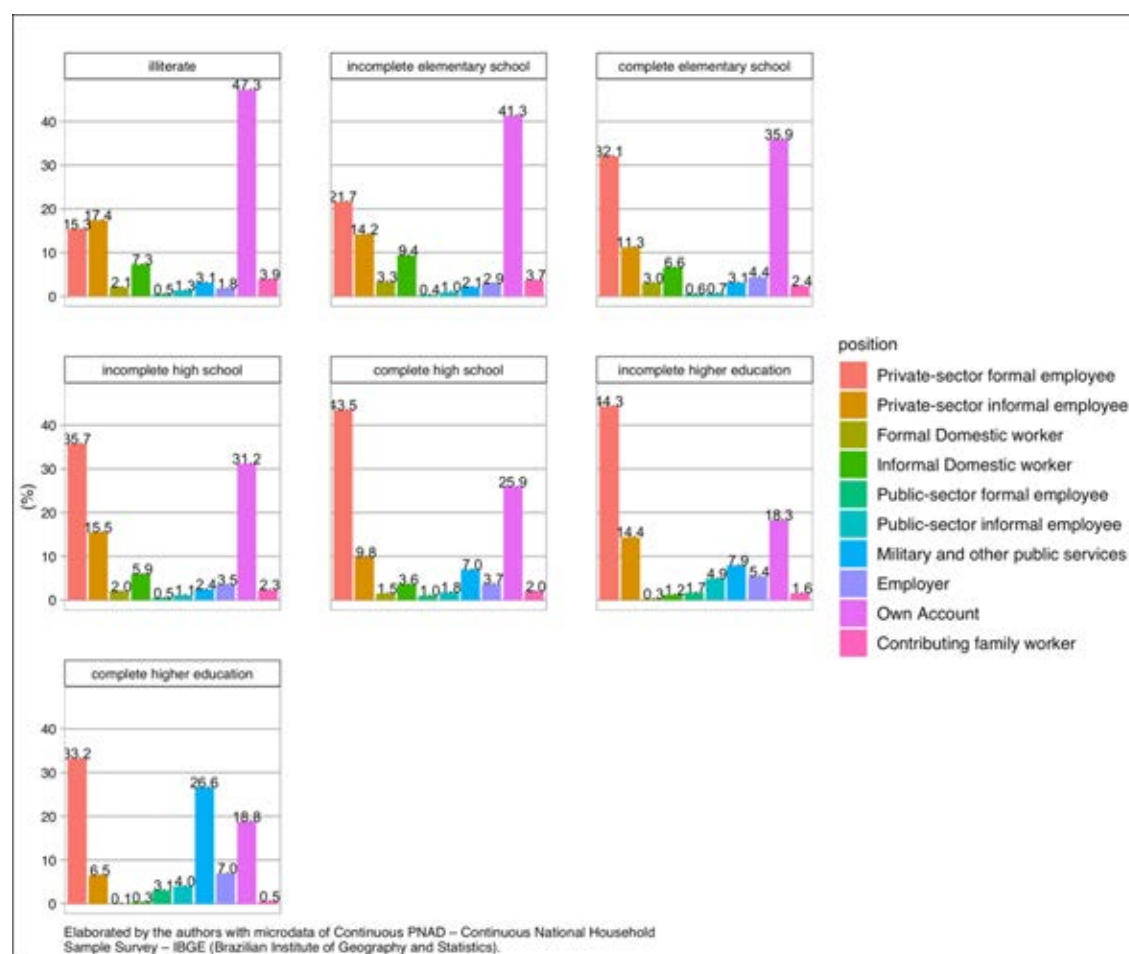
Annex Table 20: Underemployment rate (percentage) by education level, race and sex, first quarter of 2021

education		Black Women	Black Men	White Women	White Men	Total
illiterate		17.5	12.6	13.3	10.7	13.4
incomplete	elementary school	17.9	11.2	11.9	6.9	11.5
complete elementary school		14.1	7.4	9.7	4.2	8.2
incomplete high school		18.9	9.5	15.7	6.5	11.7
complete high school		11.5	6.2	8.5	3.9	7.4
incomplete higher education		9.2	6.2	7.2	4.8	6.7
complete higher education		7.9	4.2	5.7	3.3	5.3
Total		12.3	7.9	8.0	4.6	8.0

Source: Elaborated by the authors based on the Continuous PNAD.

Black and white women show different relationships to education levels. Although educational improvements increase participation and employment rates, this is not in the same proportions as men because women maintain higher inactivity compared to men, irrespective of their enhanced education levels.

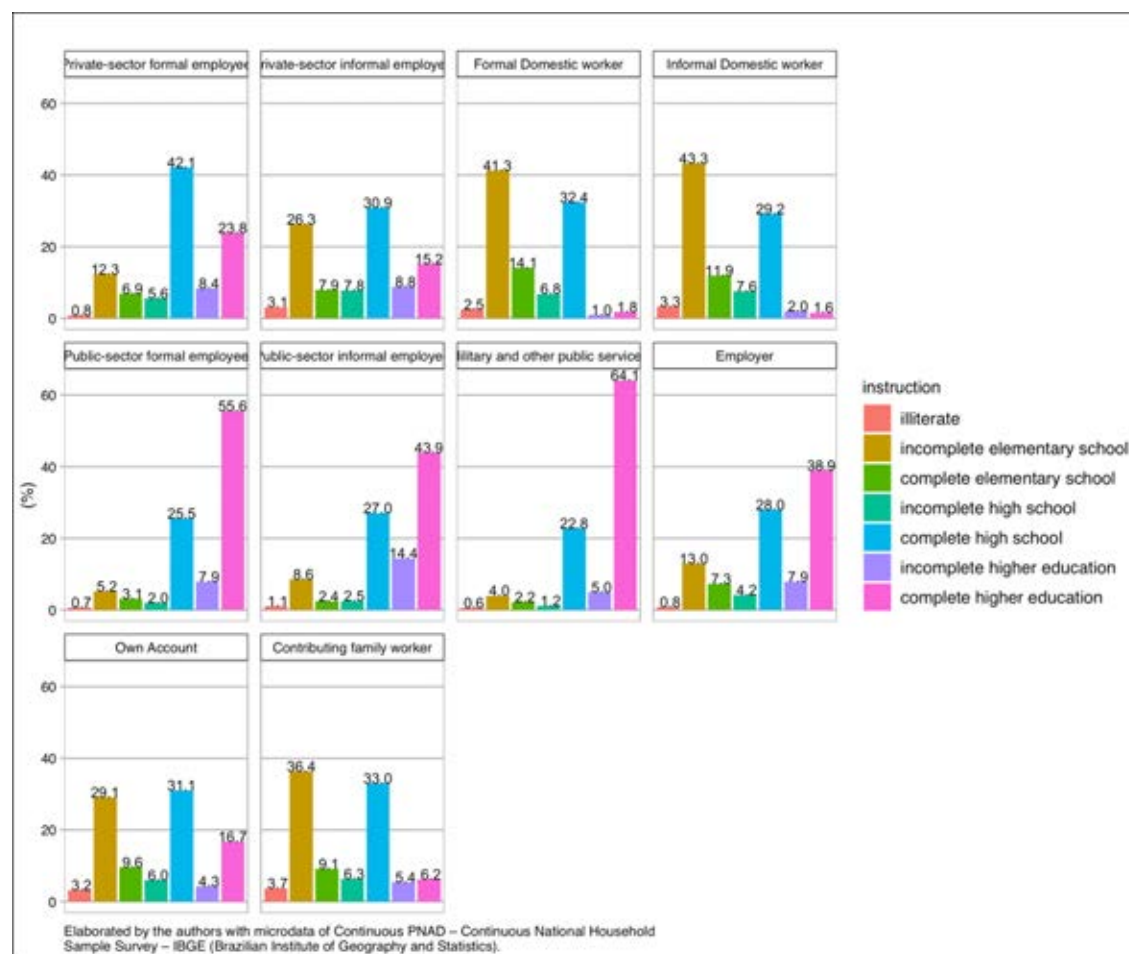
Differences are also evident among groups of women. Black women are affected by greater barriers even with qualifications to access good jobs. This can be seen from them having the highest unemployment (11.7 percent, Table 19) and underemployment (7.9 percent, Table 20) rates among those with higher education degree. Also, more black women are employed than non-employed only from the moment they enter university. Otherwise, the number of black women employed is below the number non-employed (with a level of employment around 40 percent). This is a result of black women's high participation in the potential labour force and in the population outside the extended labour force.

Annex Figure 23: Employment (percentage) by education level and occupation, first quarter of 2021

Improved economic activity associated with greater education can also be observed in terms of types of occupation. Annex Figure 23 demonstrates how with higher education levels, the importance of formal employment in the private sector and in the military and other public services increases. The share of formal private sector employment is 15.3 percent for illiterate workers but 43.5 percent for ones with complete high school degrees and 33.2 percent for ones with complete higher education degrees. For military and other public sector services, the importance of higher education is even clearer. The share of those positions for illiterate workers is 3.1 percent, compared to 7 percent for those with completed high school and 26.6 percent for those with higher education. The employer position also corresponds with increased education levels, from 1.8 percent for illiterate people to 3.7 percent for those who complete high school to 7 percent for those who complete higher education. Both employers and the military and other public service positions yield the highest remuneration (5.7 and 4.3 times the monthly minimum wage, respectively) and much higher than the total average remuneration in Brazil.

Shares of work positions with lower payments, such as informal domestic work (70 percent of the monthly minimum wage), informal employment in the private sector (1.6 times the minimum wage) and own-account activities (1.8 times the monthly minimum wage) decline as education levels ramp up. Illiterate adults, for example, highly depend on own-account activities to earn an income (47.3 percent) while those jobs are just 18.8 percent of the total employment of people with higher education.

Annex Figure 24: Population (percentage) by occupation and education level, first quarter of 2021



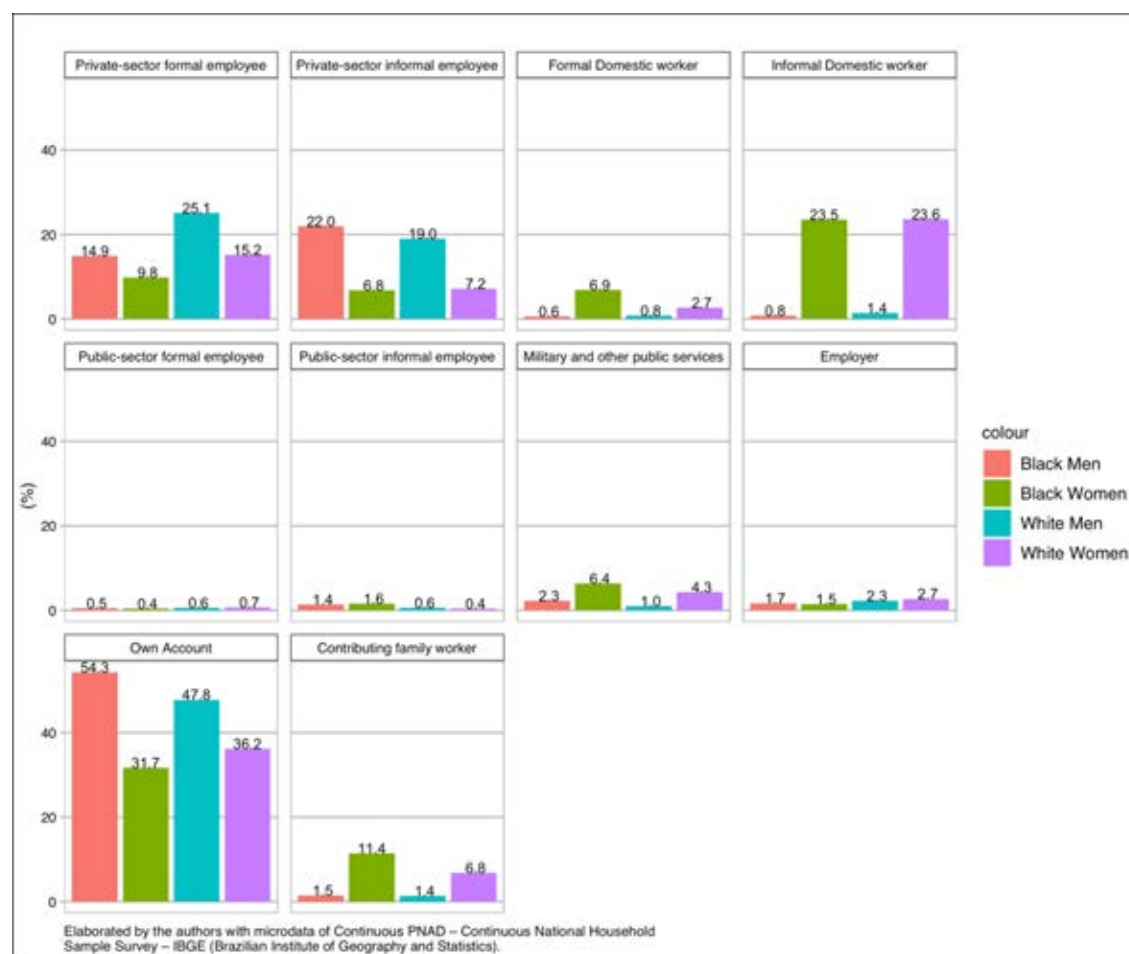
With lower intensity, similar patterns occur in informal employment in the private sector. While those jobs are 17.4 percent of total activity for illiterate workers, they represent 6.5 percent for those with higher education. Domestic work also declines in importance as education increases. Astonishingly, however, these precarious jobs do not totally disappear among people with complete high schooling and at least some higher education.

In the military and other public services, people with complete higher education hold most positions (64.1 percent, Annex Figure 24) as is the case in the employers category (38.9 percent). For formal and informal

domestic workers, the main education level observed is incomplete elementary school (41.3 percent and 44.3 percent, respectively).

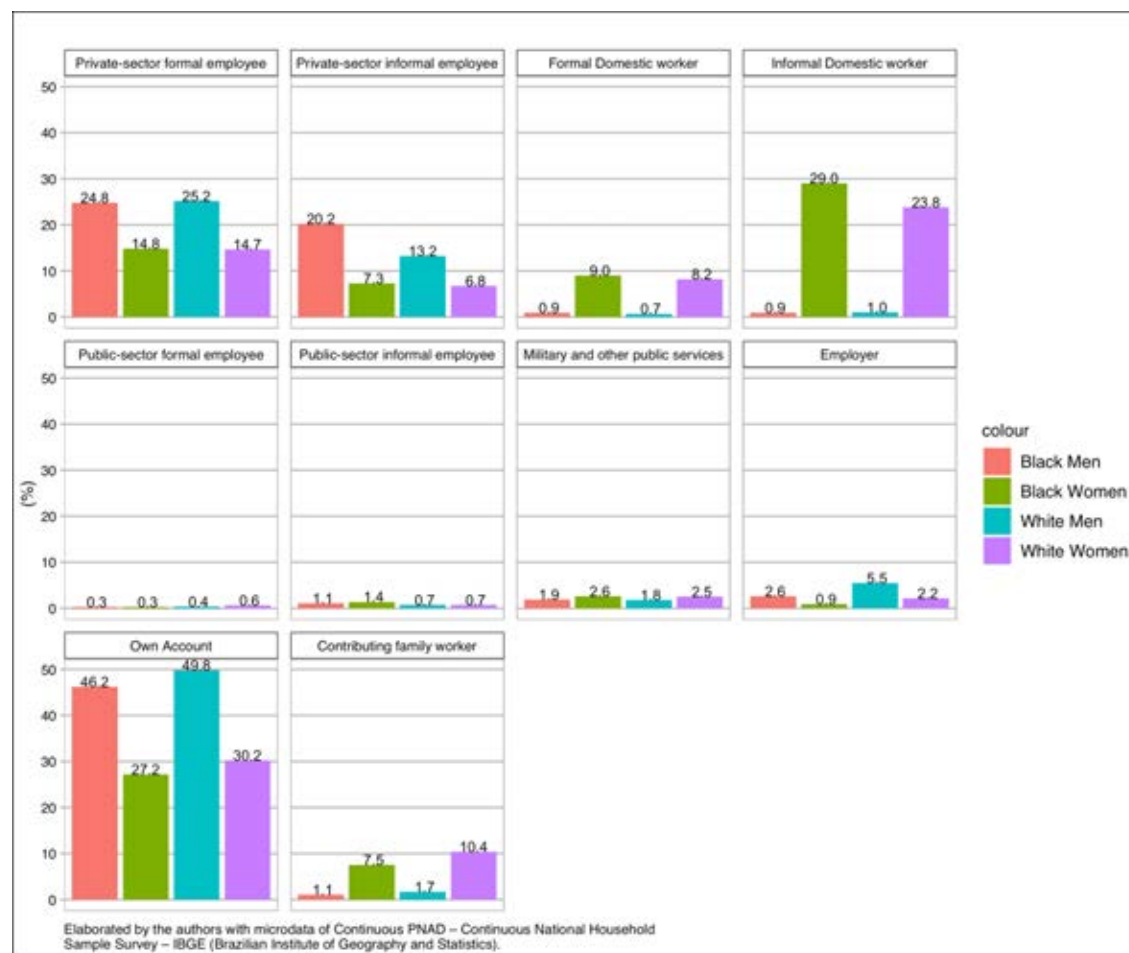
As pointed out in Annex Figure 25, the black population has the vast majority of illiterate workers (57.4 percent black men and 20.9 percent black women). Among them, informal employment and own-account jobs have a bigger importance for black men (22 percent and 54.3 percent) than for other groups. As black men represent 57.4 percent of total illiterate workers, these are their main occupations. But for illiterate black and white women, domestic work is a big share of their work (23.6 percent and 23.5 percent, respectively).

Annex Figure 25: Illiterate people (percentage) by occupation, sex and race, first quarter of 2021

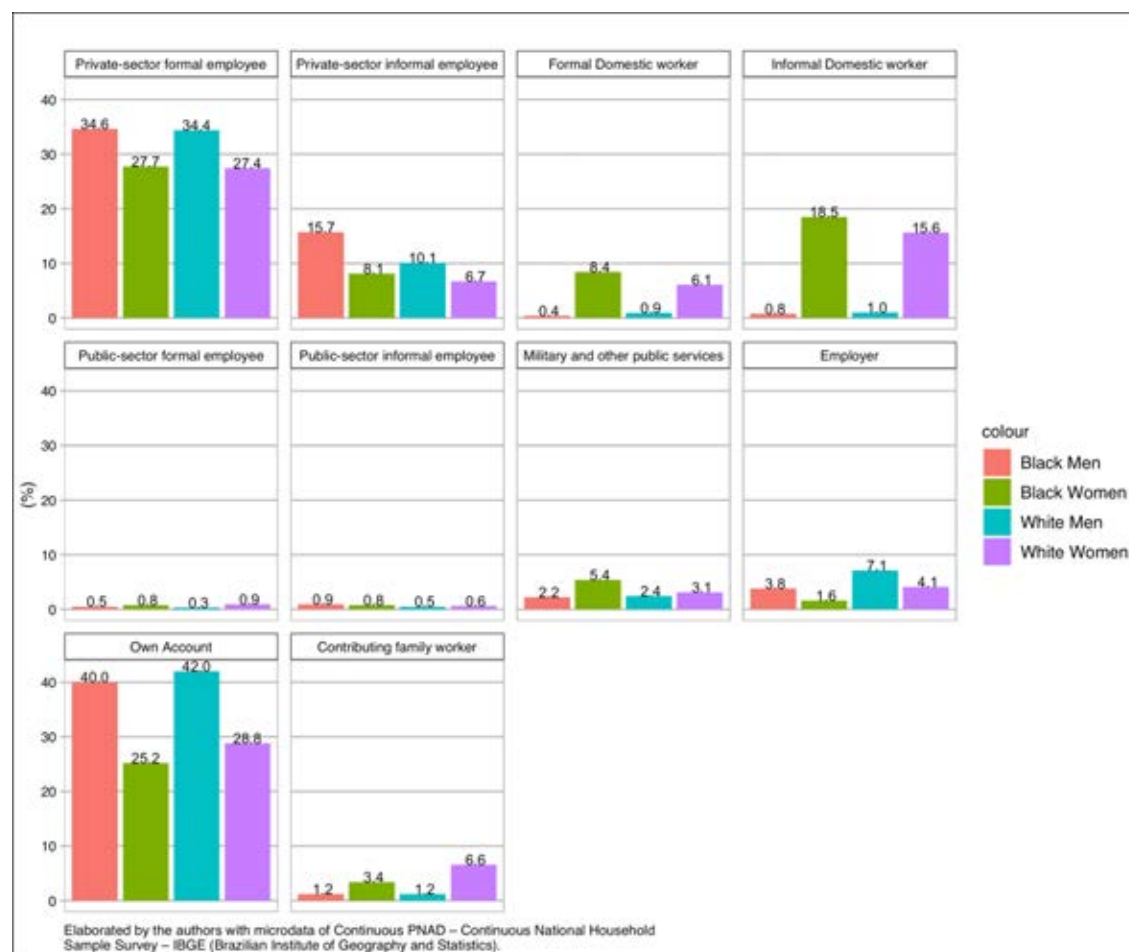


With incomplete elementary school (Annex Figure 25), formal employment by the private sector gains importance for all groups, except for white men whose share (around 25 percent) is the same as the illiterate white men's cohort. Own-account jobs are again the main occupation for all groups, except for black women, where informal domestic work is the main occupation (29 percent).

Annex Figure 26: People with incomplete elementary schooling (percentage) by occupation, sex and race, first quarter of 2021

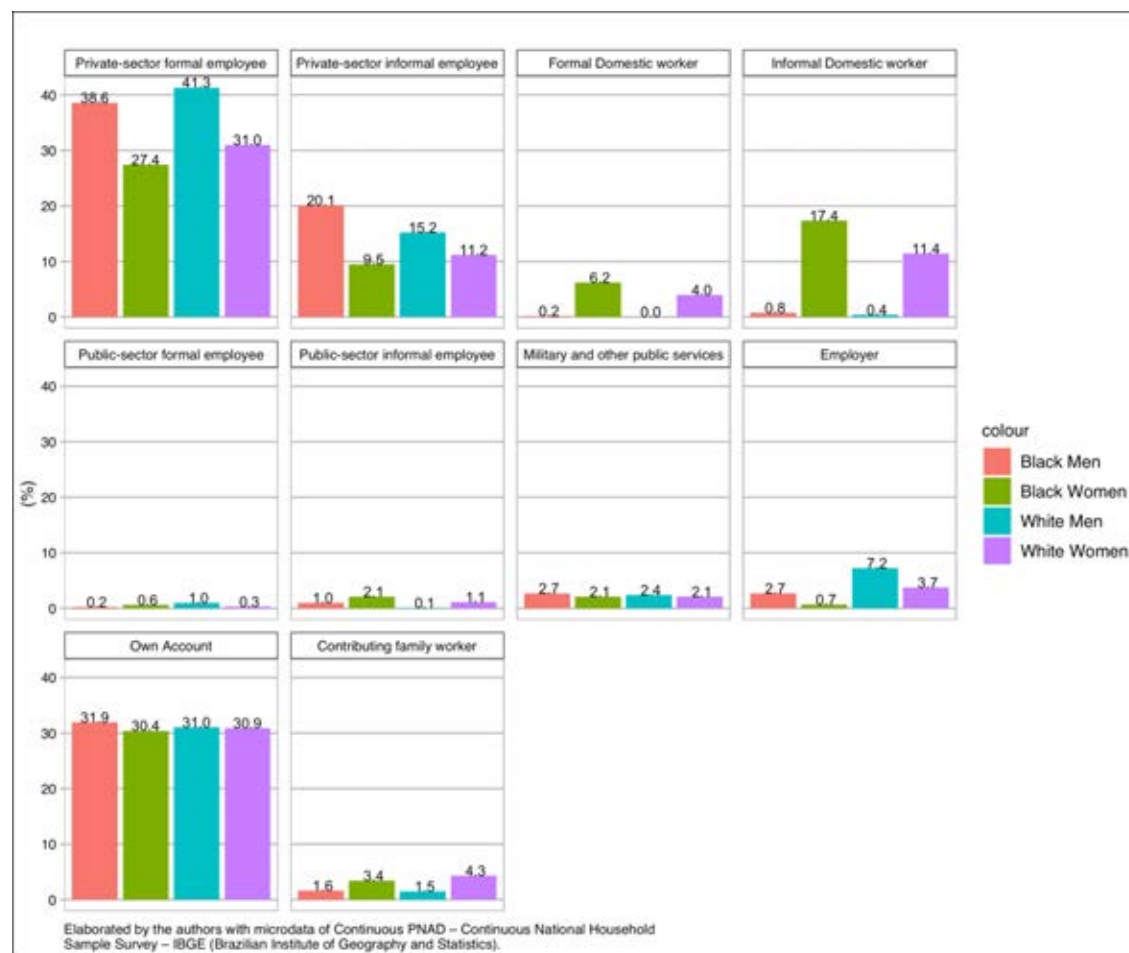


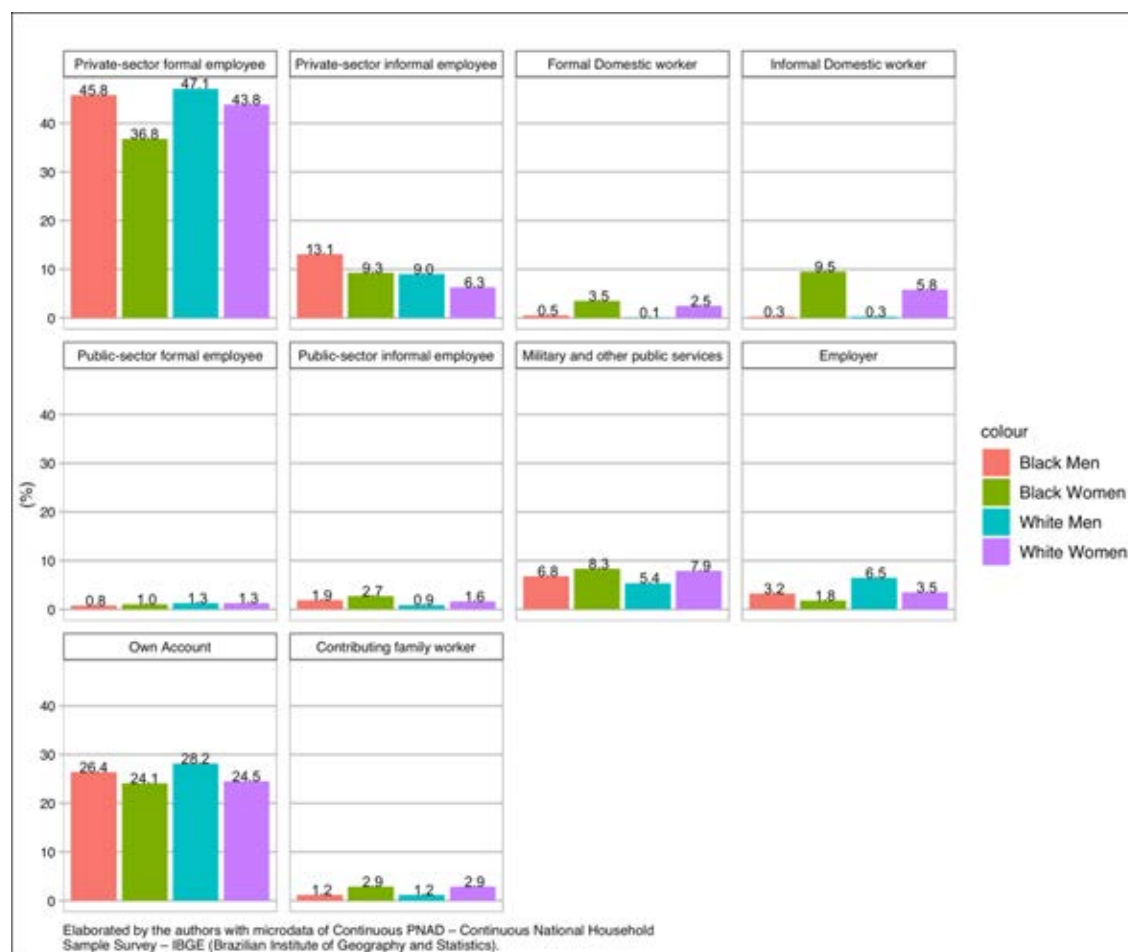
Annex Figure 27: People with complete elementary schooling (percentage) by occupation, sex and race, first quarter of 2021

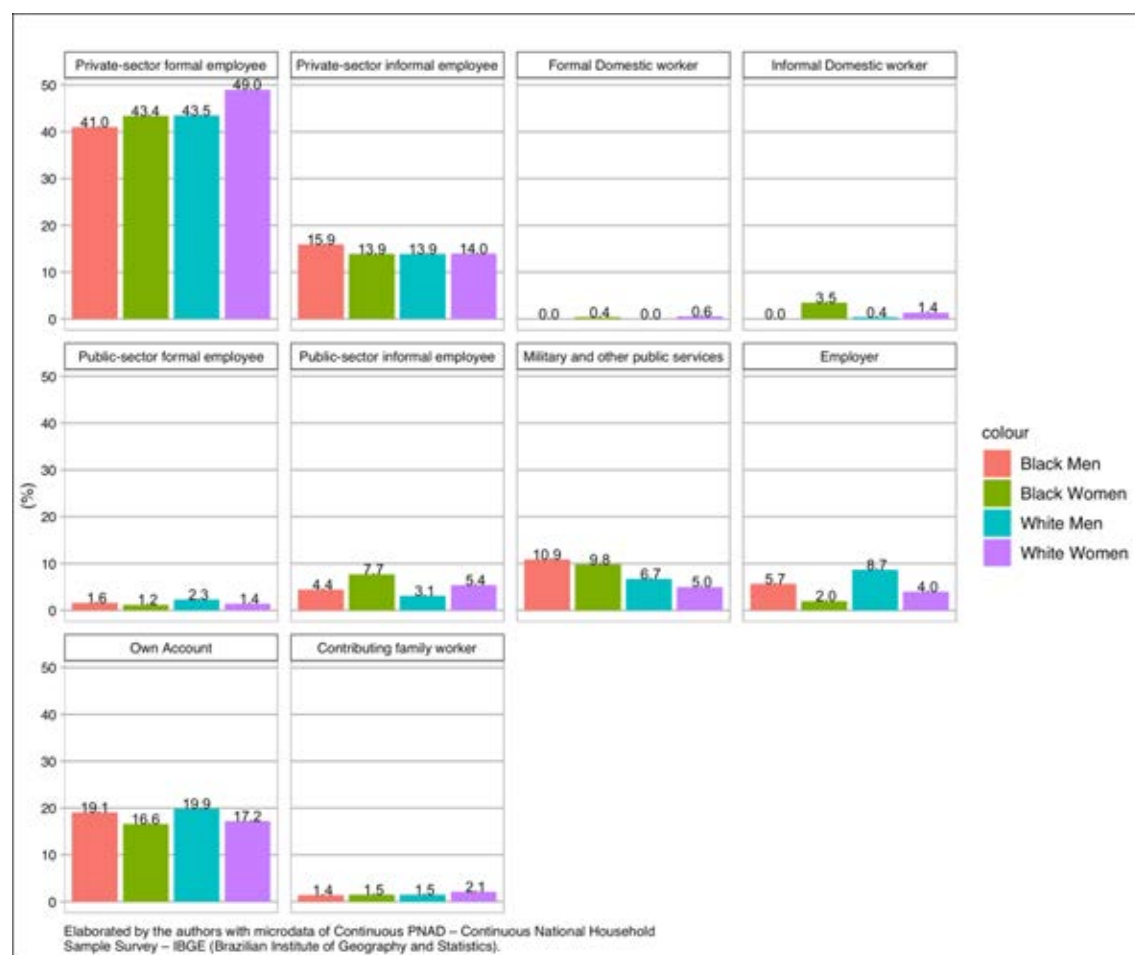


With a complete high school education, 43.5 percent of all occupations involve formal employment by the private sector, especially for white men (47.1 percent) and black men (45.8 percent). The share for black women is much lower (36.8 percent) due to the high prevalence of informal domestic work among these women, even with complete high schooling.

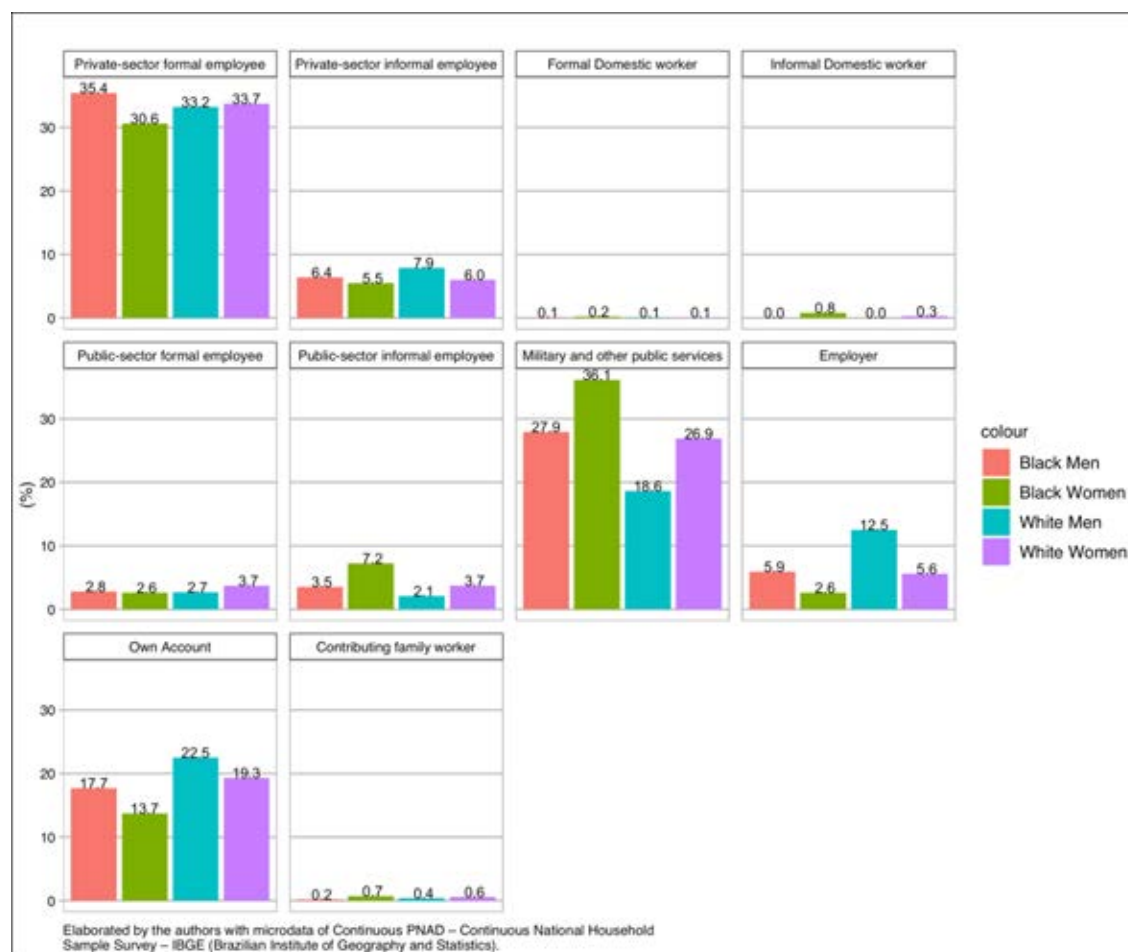
Annex Figure 28: People with incomplete high schooling (percentage) by occupation, sex and race, first quarter of 2021



Annex Figure 29: People with complete high schooling (percentage) by occupation, sex and race, first quarter of 2021

Annex Figure 30: People with incomplete higher education (percentage) by occupation, sex and race, first quarter of 2021

Complete higher education minimizes domestic work. Military and other public services appear to be the main occupation for black women (36.1 percent). Black women are 20.9 percent of workers with higher education degrees and 28.3 percent of those with this education level employed by the military and other public services. The relatively high importance of this occupational position for black women is explained by the hiring model of the majority of those jobs: A public tender is made by blind examinations with less room for racial and sex prejudice or discrimination in hiring. The public services sector is very important for black women to obtain better jobs with good work conditions, remuneration and stability.

Annex Figure 31: People with complete higher education (percentage) by occupation, sex and race, first quarter of 2021

Annex Table 21: Earnings (proportionate to the monthly minimum wage, on average) by occupation, sex and race, first quarter of 2021

Employment occupations	Black	Black	White	White	Total
	Women	Men	Women	Men	
Private-sector formal employee	1.5	1.9	2.4	2.8	2.2
Private-sector informal employee	1.1	1.1	2.1	2.4	1.6
Formal domestic worker	1.2	1.5	1.2	1.4	1.2
Informal domestic worker	0.7	0.9	0.8	1.0	0.7
Public-sector formal employee	2.4	3.5	3.9	4.9	3.8
Public-sector informal employee	1.7	2.5	2.4	3.3	2.3
Military and other public services	3.0	4.2	4.2	6.3	4.3
Employer	3.3	4.3	5.1	7.1	5.7
Own account	1.0	1.3	2.1	2.7	1.8
Contributing family worker	0.3	0.3	0.4	0.9	0.5
Total	1.5	1.9	2.6	3.4	3.4

Source: Elaborated by the authors based on the Continuous PNAD.

Nevertheless, black women face difficulties in accessing high-level jobs in public service, since racism also operates in those institutions. This can explain why average payments for black women in those occupations are less than half of those of white men (3.3 times the monthly minimum wage versus 7.1 times). Almost the same distance appears between the two groups in earnings for formal employment in the private sector (1.5 times the monthly minimum wage versus 2.8 times).

The biggest discrepancy in comparing black women and white men's remuneration shows up in the superior level of education. Racism and sex discrimination threaten efforts by black women to gain equality in job conditions and pay by increasing their educational skills.

STATISTICAL ANNEX

Annex Table 22: Composition of activity sectors in the Brazilian labour market

Name used in the paper	Sector composition
Agriculture	Agriculture, forestry, and fishing
Industry	Industry (manufacturing, mining, and other industrial activities)
Construction	Construction
Wholesale and retail services	Wholesale and retail services, motor vehicles and motorcycles repair services
Transport	Transport, storage services and postal activities
Accommodation and food services	Accommodation and food services
Information, Real estate and support services activities	Information, communication and financial activities; Real estate activities; Professional, scientific and technical activities; Administrative and support services activities
Public administration	Public administration, defense, and compulsory social security
Education, human health, and social work services	Education, human health, and social work services
Other services	Other services
Domestic services	Domestic services

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Annex Table 23: Participation (percentage) of black people by activity sector and earnings (proportionate to the monthly minimum wage), first quarter of 2021

	0 to 0.5	0.5 to 1	1 to 2	2 to 3	3 to 5	5 to 10	10 to 20	Over 20	TOTAL
Agriculture, forestry, and fishing	75.4	62.8	49.9	34.7	28.3	22.2	13.5	14.7	58.8
Industry Manufacturing, Mining, and other industrial activities	64.1	63.4	49.9	40.6	37.8	24.2	23.2	10.2	49.6
Construction	78.6	69.8	65.5	50.5	40.8	29.6	24.8	3.9	64.3
Wholesale, vehicle repair and retail trade, repair of motor vehicles and motorcycles	67.5	64.0	51.2	39.3	31.8	29.5	14.8	29.6	52.6
Shipping, storage and mail	68.8	59.7	55.7	50.3	35.7	33.2	46.8	0.0	53.5
Transportation, Storage and Postal activities									
Hosting services and food	70.8	64.5	49.9	44.2	32.0	32.5	30.1	10.9	57.5
Accommodation and food services activities									
Information, communication and financial activities, real estate activities, Professional, scientific and technical activities; Administrative and support services activities	58.4	60.3	49.4	32.2	27.4	20.7	12.3	14.6	41.6
Public administration, defense and compulsory social security	70.9	66.6	54.6	45.0	46.3	44.1	29.5	23.6	49.6
Education, Human health and social work services	63.5	65.7	50.5	44.6	39.6	31.2	20.6	7.9	47.2
Other services	69.8	58.4	54.0	41.3	37.7	37.8	11.5	20.0	54.7
Domestic services	70.9	65.4	59.1	66.5	19.7	100.0	0	0	1.0
Total	70.5	63.9	52.6	41.5	35.9	30.0	21.0	14.5	52.4

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Annex Table 24: Participation (percentage) of black people by activity sectors and income (proportionate to the monthly minimum wage), first quarter of 2021

	0 to 0.5	0.5 to 1	1 to 2	2 to 3	3 to 5	5 to 10	10 to 20	Over 20	Total
Illiterate	81.1	81.1	69.2	66.5	60.3	33.4	0.0	0.0	77.5
Elementary school incomplete	70.8	67.7	58.3	44.4	40.3	34.6	30.9	59.7	62.8
Elementary school complete	71.1	61.6	57.7	48.0	33.8	37.3	25.4	1.9	58.1
High school incomplete	74.9	64.9	58.2	55.3	44.8	27.1	31.1	0.0	62.1
High school complete	70.8	64.8	53.0	45.8	42.2	41.8	24.1	41.0	56.0
Higher education incomplete	58.6	53.4	44.6	37.3	30.0	31.4	20.1	23.8	44.2
Higher education complete	46.2	50.6	43.4	35.9	33.7	27.6	20.5	12.8	35.8
Total	70.5	63.9	52.6	41.5	35.9	30.0	21.0	14.5	52.4

Source: Elaborated by the authors with microdata of the Continuous PNAD.

Annex Table 25: Population (millions) by age cohort and occupation, first quarter of 2021

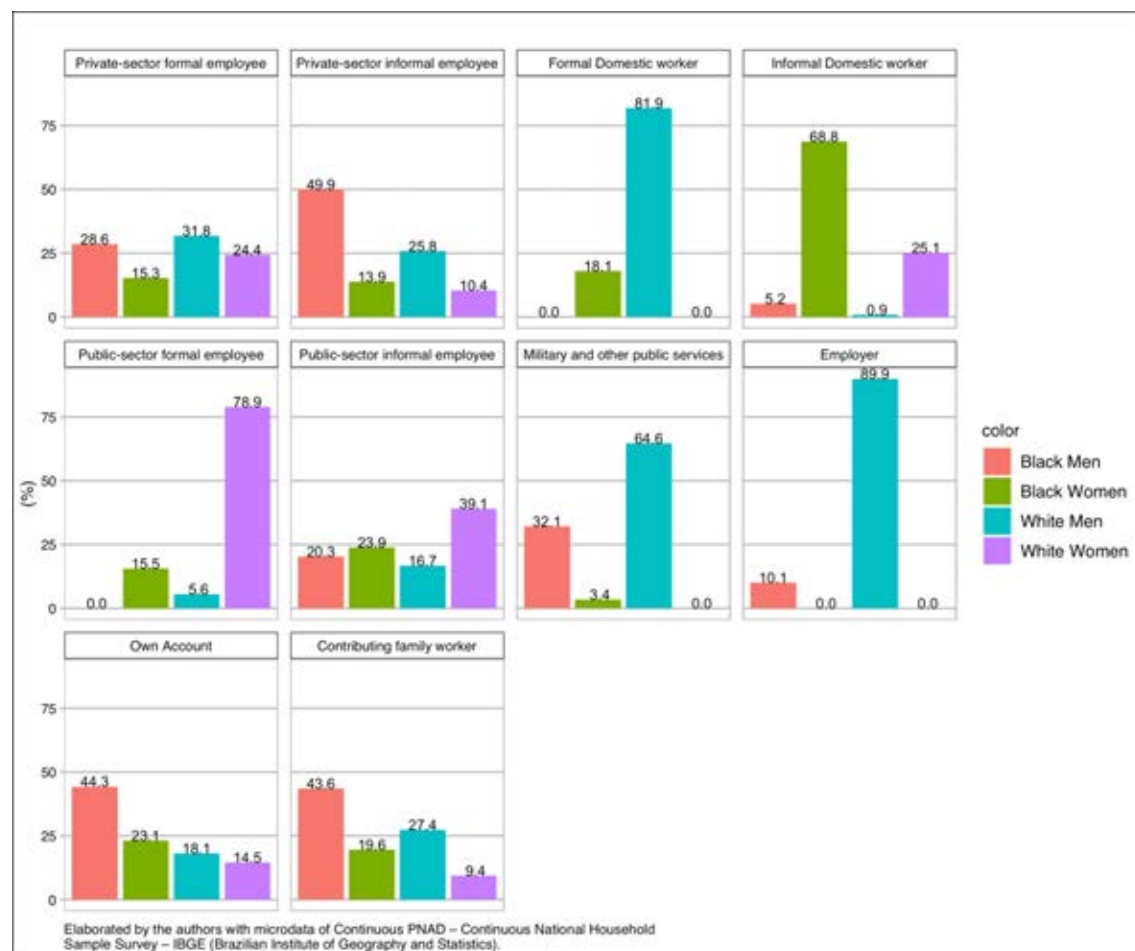
Employment occupations	14-18	19-24	25-29	30-49	50-65	65 +
Private-sector formal employee	0.37	4.05	4.10	15.91	4.74	0.31
Private-sector informal employee	0.69	2.04	1.27	3.94	1.49	0.24
Formal domestic worker	0.00	0.03	0.06	0.71	0.51	0.03
Informal domestic worker	0.08	0.19	0.21	1.84	1.13	0.13
Public-sector formal employee	0.01	0.06	0.08	0.68	0.29	0.04
Public-sector informal employee	0.02	0.25	0.27	0.97	0.35	0.03
Military and other public services	0.01	0.20	0.38	4.93	2.90	0.33
Employer	0.00	0.10	0.16	1.83	1.26	0.40
Own account	0.24	1.42	1.94	11.17	7.41	1.59
Contributing family worker	0.34	0.38	0.14	0.62	0.42	0.11
Total	1.77	8.73	8.56	42.6	20.51	3.21

Source: Elaborated by the authors based on the Continuous PNAD.

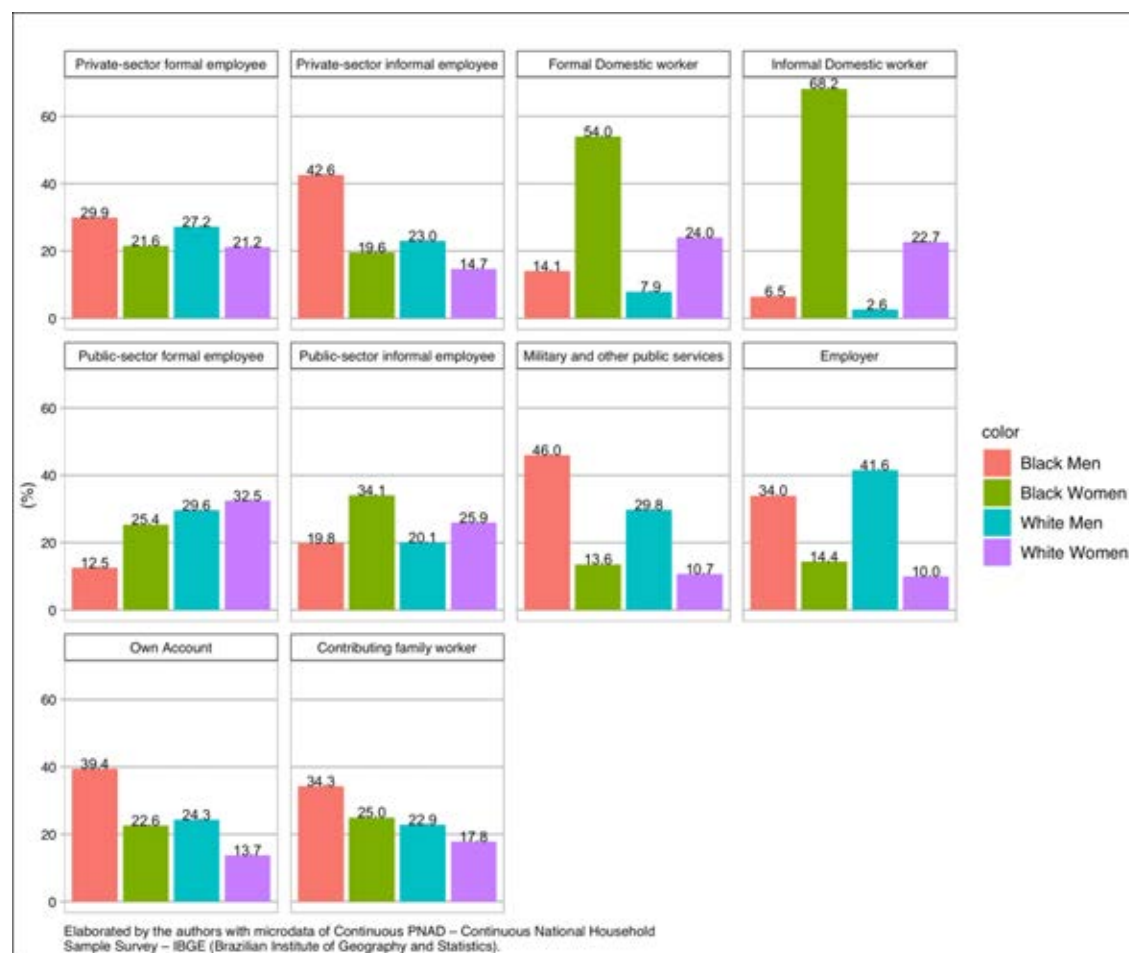
Annex Table 26: Population (percentage) by age cohort and occupation, first quarter of 2021

Employment occupations	14-18	19-24	25-29	30-49	50-65	65+
Private-sector formal employee	21.1	46.4	47.9	37.4	23.1	9.6
Private-sector informal employee	38.8	23.4	14.8	9.2	7.3	7.6
Formal domestic worker	0.2	0.3	0.7	1.7	2.5	0.9
Informal domestic worker	4.3	2.2	2.4	4.3	5.5	4.0
Public-sector formal employee	0.6	0.7	1.0	1.6	1.4	1.3
Public-sector informal employee	1.4	2.9	3.2	2.3	1.7	0.9
Military and other public services	0.7	2.3	3.8	11.6	14.1	10.1
Employer	0.2	1.2	1.8	4.3	6.2	12.5
Own account	13.3	16.3	22.6	26.2	36.1	49.6
Contributing family worker	19.5	4.3	1.7	1.5	2.1	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Elaborated by the authors based on the Continuous PNAD.

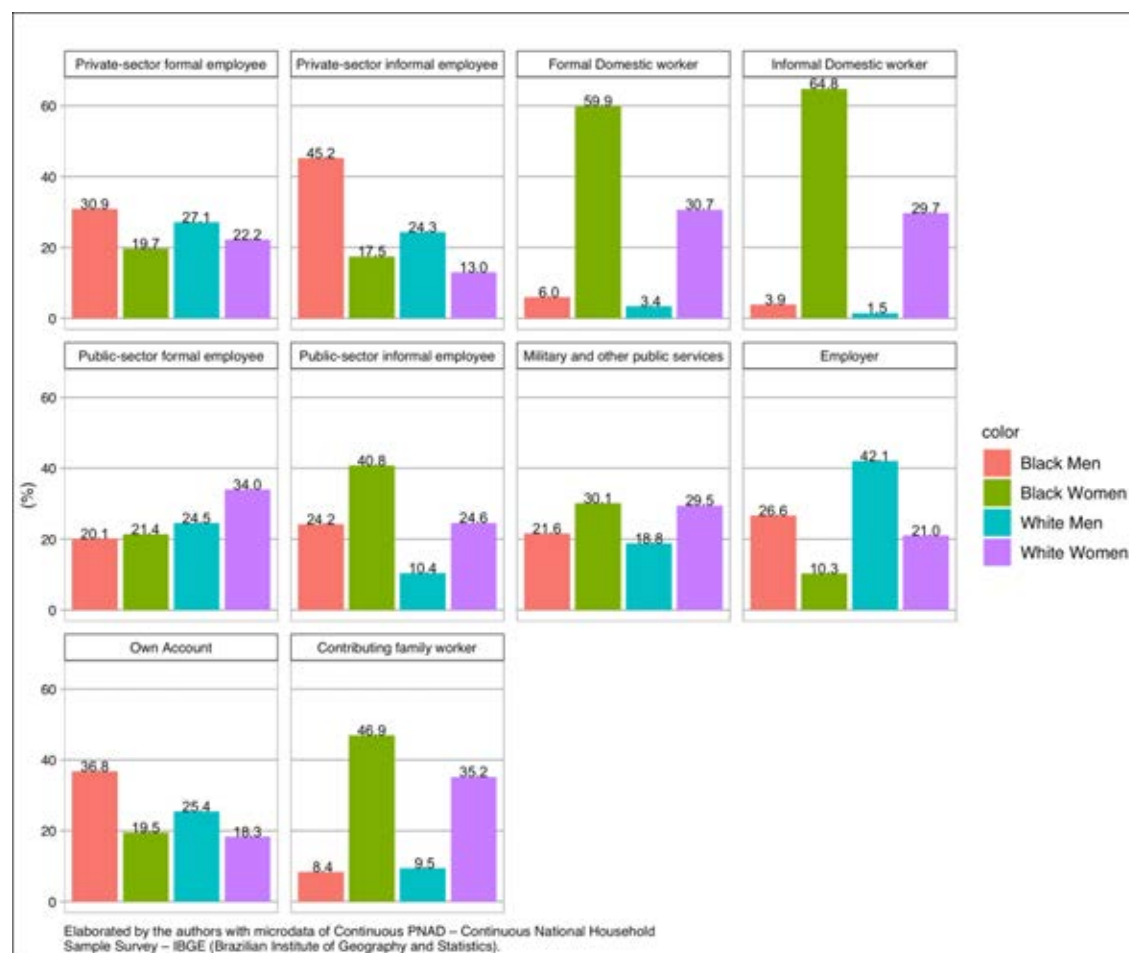
Annex Figure 32: Population aged 14 to 18 (percentage) by occupation, sex and race, first quarter of 2021

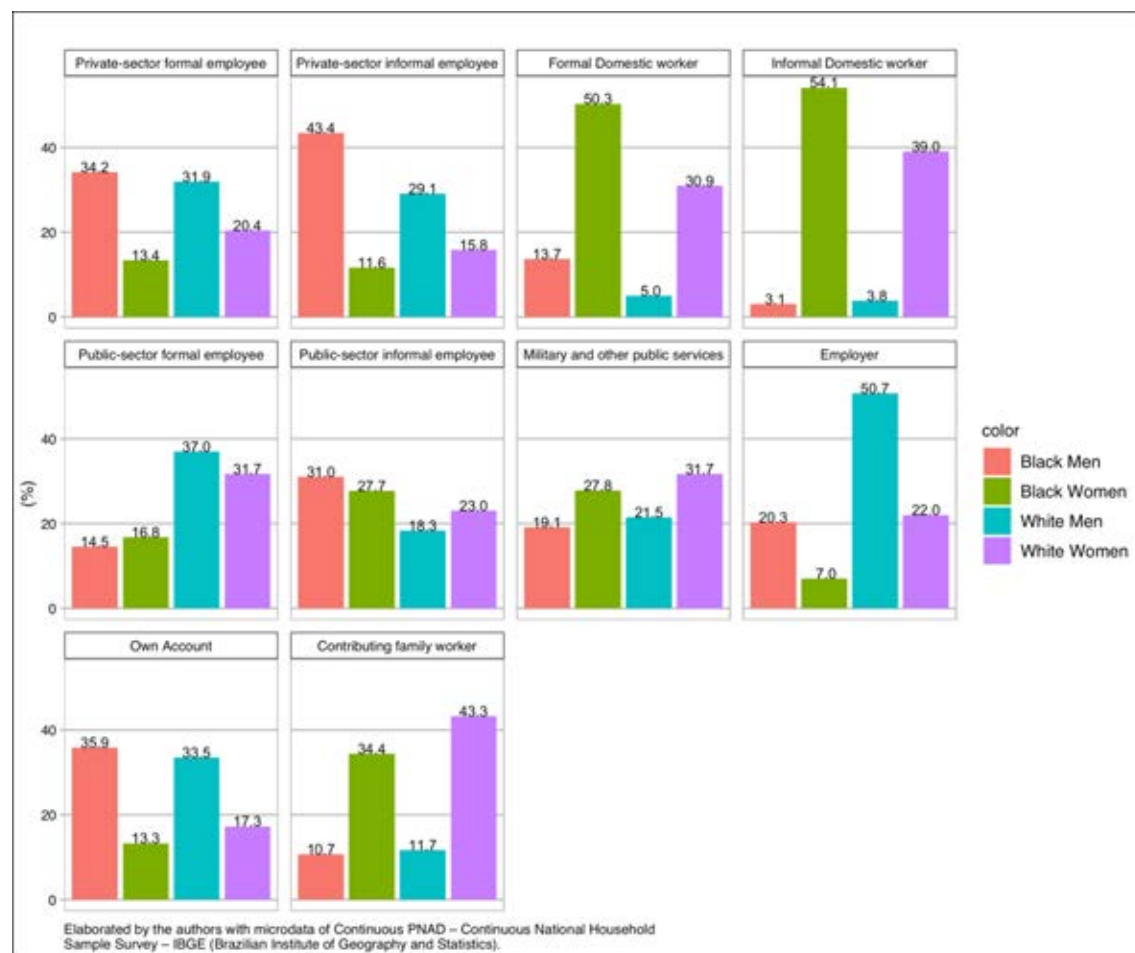
Annex Figure 33: Population aged 19 to 24 (percentage) by occupation, sex and race, first quarter of 2021



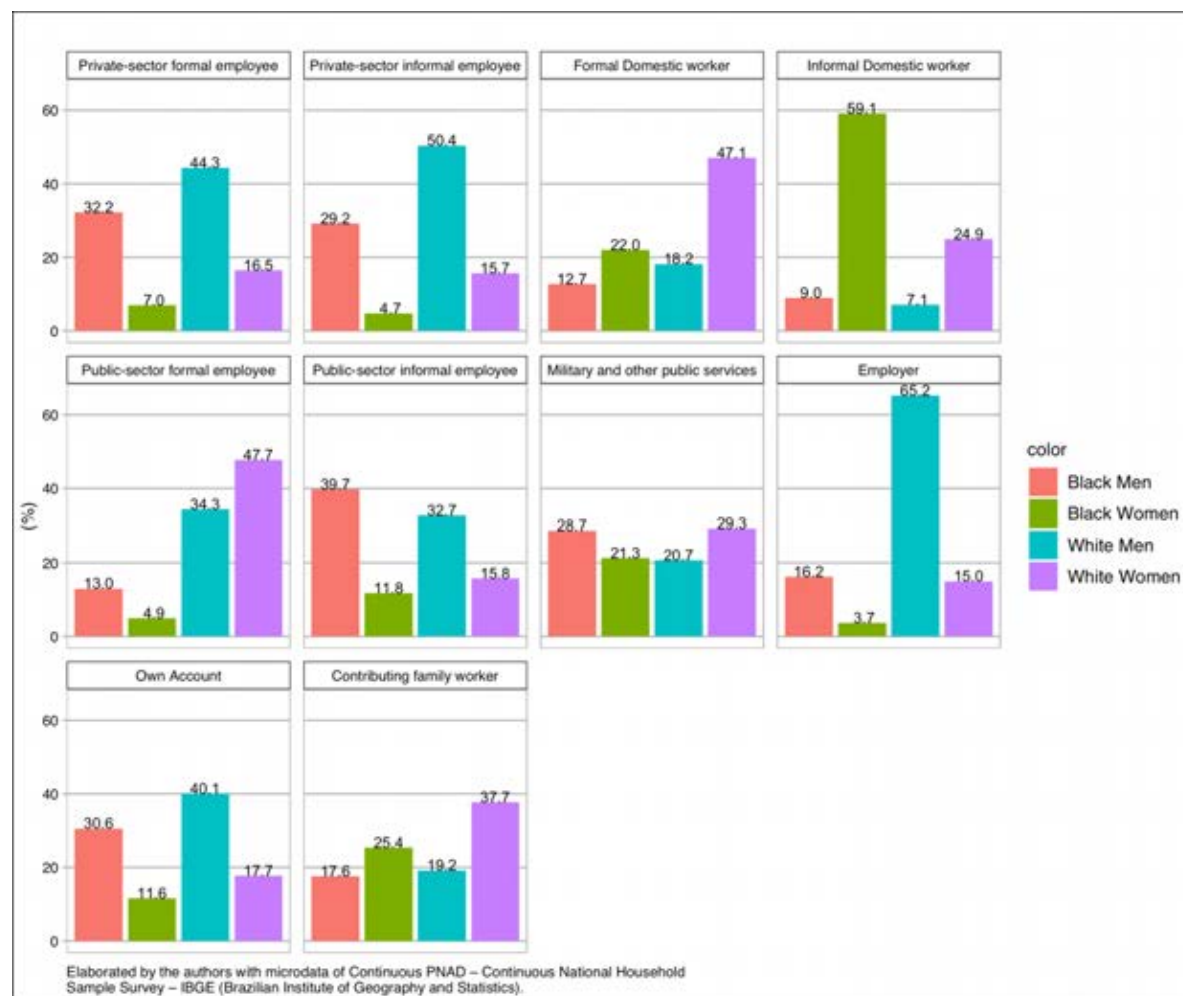
Annex Figure 34: Population aged 25 to 29 (percentage) by occupation, sex and race, first quarter of 2021

Annex Figure 35: Population aged 30 to 49 (percentage) by occupation, sex and race, first quarter of 2021



Annex Figure 36: Population aged 50 to 64 (percentage) by occupation, sex and race, first quarter of 2021

Annex Figure 37: Population aged 65 and above (percentage) by occupations, sex and race, first quarter of 2021



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