Conditions of access to the formal labor market

An analysis of the 2005 beneficiaries of the PBF

Study from the Payroll of the *Bolsa Família* Program and Annual List of Social Information

May 2023

Paulo Tafner, Sergio Guimarães Ferreira and Giovanna Ribeiro (IMDS), Samuel Franco and Eloah Fassarella (Oppen Social) and Valdemar Neto (FGV EPGE)

1. Introduction
Presentation of points of interest and study plan

Goals

To evaluate the access to the formal labor market between 2015 and 2019 by tracking the records of poor children on RAIS years later: we check if 7-to-16-year-old beneficiaries of the Bolsa Familia Program (PBF) in 2005 were formal employees between 2015 and 2019.

To compare employment conditions of the group of poor children (7-to-16-year-old beneficiaries of the PBF in 2005) with a group of non-poor children of the same age group: non-beneficiaries of the PBF between 2005 and 2019 of the same age group.

Data source

Ministry of Citizenship, Payroll of the *Bolsa Família* Program (**Payroll PBF**)

- Ministry of Labor and Social Security, Annual Report of Social Information (RAIS)
- IBGE, National Continuous Household Sample Survey (PNAD Continuous)

Dynamics of poverty and social mobility throughout the life cycle

To study the **dynamics of poverty and social mobility in Brazil**, especially throughout the life cycle of the individual, the IMDS proposes an agenda of studies based on the use of longitudinal panel data. We intend to follow **poor children's** life cycle, focusing on the beneficiaries of the *Bolsa Família* Program (PBF) in 2005. *Bolsa Família* was the main program for the eradication of poverty in Brazil at the time.

First, we measured the percentage of children in the PBF Payroll of 2005 who were not present in the *CadÚnico* in 2019, which is a proxy for leaving poverty. The results can be found on the IMDS website: Indicators section > *Bolsa Família*. An analysis of the same universe brought in this presentation, **7-to-16-year-old beneficiaries of the PBF in 2005 ,** can be found in the Publications > Presentations section > Exit and permanence in *CadÚnico*: an analysis of the 2005 beneficiaries of the PBF.

The second step relates to the children identified in the PBF Payroll of 2005 and the Annual Report of Social Information (RAIS) between 2015 and 2019. Three publications addressed the formal employment rate of beneficiaries of the PBF in 2005:

1. Access to the formal labor market

2. Access to the formal labor market and Territory

3. Exit from *CadÚnico* and access to the formal labor market – An analysis of the universe of 7-to-16-year-old dependent beneficiaries of the PBF in 2005.

Having identified in RAIS those who accessed formal employment, this presentation aims to analyze their employment conditions and compare their access to those of the same age group who were not beneficiaries of the PBF (people who were not identified as poor in 2005 and were not part of the PBF until 2019).

imds
instituto mobilidade e
desenvolvimento social

Initial situation (PBF Payroll: 2005)

Final situation (RAIS: 2015 to 2019)

Children aged 7 to 16 years old in 2005 who were beneficiaries of the PBF in 2005

BOLSA Família
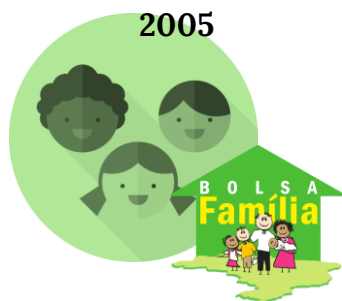
1st phase of the studies PBF/RAIS

2nd phase of the studies PBF/RAIS

Rate of access to the formal labor market
Percentage of beneficiaries of PBF aged 7 to 16 in 2005 who were found in RAIS between 2015 and 2019.

Not found in RAIS

Found in RAIS in up to 2 years

Found in RAIS in 3 years or more

Conditions of access to the formal labor market
Conditions of access to the formal labor market of those who were found in RAIS at some point between 2015 and 2019

Conditions of the last job found in RAIS between 2015 and 2019

Young 17-to-30-year-olds

2005 – 2006 – 2007 – 2008 – 2009 – 2010 – 2011 – 2012 – 2013 – 2014 – **2015 – 2016 – 2017 – 2018 – 2019**

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

imds
instituto mobilidade e
desenvolvimento social

Initial situation (PBF Payroll: 2005)

Final situation (RAIS: 2015 to 2019)

Children aged 7 to 16 years in 2005 who were beneficiaries of the PBF in 2005

Children aged 7 to 16 years in 2005 who were not beneficiaries of the PBF and were not found in the PBF Payroll until 2019

2nd phase of the studies PBF/RAIS

Conditions of access to the formal labor market
Conditions of access to the formal labor market of those who were found in RAIS at some time between 2015 and 2019

Characteristics of the last formal job found in RAIS between 2015 and 2019

Young 17-to-30-year-olds

Comparison

Characteristics of the last formal job of the others found in RAIS between 2015 and 2019

Characteristics of the last formal job between 2015 and 2019 for: 1) people who were 7 to 16 and in PBF in 2005 and had at least one record in RAIS from 2015 to 2019; 2) people of the same cohorts who were in RAIS and were not beneficiaries of the PBF between 2005 and 2019.
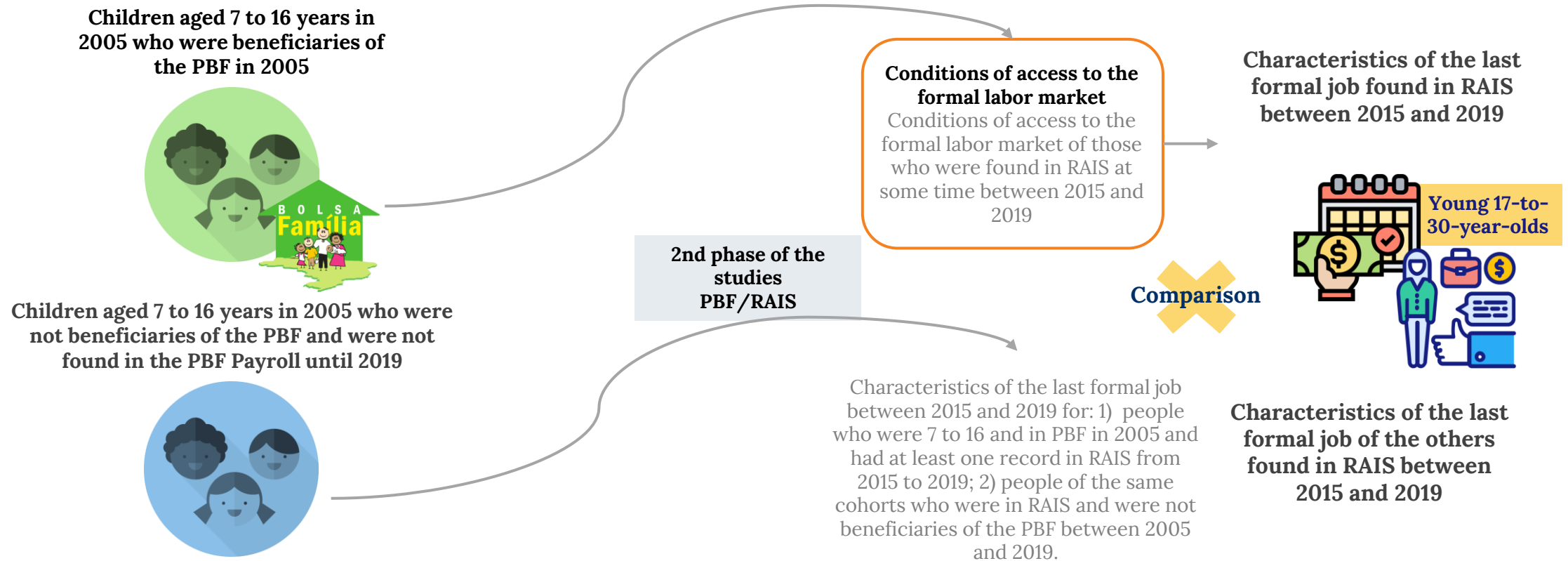
2005 – 2006 – 2007 – 2008 – 2009 – 2010 – 2011 – 2012 – 2013 – 2014 – **2015 – 2016 – 2017 – 2018 – 2019**

Conditions of access to the formal labor market: an analysis of
the 2005 beneficiaries of the PBF | May 2023

Conditions of access to the formal labor market

The following is an outline for the results of this study:

- **Universe of interest:** poor children in 2005 - beneficiaries of the PBF in 2005 from 7 to 16 years of age found in RAIS between 2015 and 2019:

  - Distribution of the population that accessed the formal labor market (RAIS) by number of accesses: 1 to 5 years. Access was not considered when the employment salary was zero.

  - **Universe of comparison:** non-poor children in 2005 – non-beneficiaries of the PBF between 2005 and 2019 who were found in RAIS between 2015 and 2019 in the same age group as those of the universe of interest;

- **Territory:** employment region and employment UF;

- **Filters:** age group in 2005 (methodology), level of education, sex, and skin color or race, as stated in the RAIS, and year of last employment between 2015 and 2019 (last year found in the RAIS);

- **Characteristics of the last job (for the sake of comparison) recorded in RAIS for each individual between 2015 and 2019:**

- Labor earnings;
  - Level in minimum wage ranges;
  - Level in poverty line ranges: methodology;
  - Position in the fifths of distribution of formal wages (RAIS).

- Quality of occupation: methodology;

- Length of employment;

- Company size: methodology.

Results presented

The results presented here are based on the verification of RAIS year by year between 2015 and 2019 to count the number of times the **poor children** found in the 2005 PBF payroll were able to **access the formal labor market** – a potential means of social mobility. In addition, it analyzes their **employment conditions** and compares them to that of children of the same age group who were not poor, that is, who were not beneficiaries of the PBF between 2005 and 2019.

Characterization of the studied population	→	Access to the formal labor market (RAIS)	→	Employment conditions in the formal labor market (RAIS) Last job between 2015/19

Level of remuneration

Quality of employment

Length of stay

Company size

Profile of the universes analyzed
Distribution of the universe of interest and comparison by sex, skin color or race, age group and level of education.

Number of times found in RAIS
Distribution of the **universe of interest** by number of times found in RAIS between 2015 and 2019 and by **region of employme**nt, **level of education, sex, skin color or race** and **age group**.

Comparison of conditions of access
Conditions of the last job between 2015 and 2019 of the universe of interest and comparison. Results also presented by level of education.

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

imds
instituto mobilidade e
desenvolvimento social

+The analyzed **universe of interest, beneficiaries of PBF aged 7 to 16 in 2005 found in RAIS between 2015 and 2019**, is composed of **5,195,203 people** and the **comparison universe, non-beneficiaries of the PBF between 2005 and 2019 found in the RAIS between 2015 and 2019**, is composed of **13,174,588 people**.

- In the universe of interest, 32.2% had a formal job at the end of the 5 years verified, *i.e.*, the largest number of years possible. ▶

- In terms of skin color or race, the main differences are between whites and non-whites. While the universe of interest has 9 p.p. fewer whites than the universe of comparison, it has 11 p.p. more non-whites. The two universes have a similar gender composition. ▶

- In terms of **educational attainment,** both groups are concentrated at the **high school graduate level**: 66.1% of the dependent beneficiaries aged 7 to 16 years and 65.3% of the non-beneficiaries had this level of schooling. However, while only **4.6% of the universe of interest has a college degree or more, the highest level of education, 16.5% of the comparison universe completed college**. This **gap in the accumulation of human capital** of poor children can be determinant for a less favorable insertion in the labor market. ▶

Results

The most educated beneficiaries were found for longer in RAIS than the less educated. Among those whose level of educational attainment was **junior high school**, **28.5%** had formal employment in the years analyzed, this percentage was **41.5% among those with a college degree.** ▶

- If we focus on individuals with **a college degree**, it is remarkable that the **average income is lower for the former beneficiaries of PBF** than for non-beneficiaries: 53.8% of those who were beneficiaries received up to 2 minimum wages, while this percentage was 33.6% for non-beneficiaries. The percentages that received more than 4 minimum wages are 12.2% and 29.1%, among beneficiaries and non-beneficiaries, respectively. ▶

- **Both groups concentrate on the 60% lowest salaries**. However, it is worth mentioning that there is some **intragenerational mobility: 15% of the beneficiaries** of the PBF in 2005 **were among the 40% highest-paid workers in RAIS**, which shows that they have overcome poverty. ▶

- Among individuals with **a college degree**, the average incomes are higher for non-beneficiaries. Note that this group is heterogeneous and may contain people similar to the beneficiaries. It is also worth mentioning that, although the percentage of top 20% earners is substantial in both groups, the number former beneficiaries who have a college degree and a top 20% salary (50,199 people) is 16 times lower than that of non-beneficiaries among the top 20% earners (814,940 people). ▶

Results presented

Regarding the quality of the occupation, while practically **50% of the beneficiaries had a job among the 20% lowest quality occupations, 32% of the non-beneficiaries have had occupations in the bottom 20% in terms of quality**. Conversely, merely **2.2% of the beneficiaries of PBF had a top 20% occupation in terms of quality.** This percentage is **9.4% among the non-beneficiaries**. ▶

- Still on the quality of the occupation, the increase in the level of education considerably shifts the distribution of both groups towards the best jobs. Among **those whose educational attainment was junior high school, 93.5% of the beneficiaries** and **78.5% of the non-beneficiaries** were in the **50% of the lowest quality occupations.** Among those with a **bachelor's degree or higher, 81.8% of beneficiaries and 89.7% of non-beneficiaries,** respectively, were among the **50% of higher quality occupations.** ▶

- Finally, greater schooling reduces the fraction of beneficiaries and non-beneficiaries in microenterprises, mainly increasing the occupation in public administration. Relevant differences occur among **those whose educational attainment was junior high school.** There are more **beneficiaries (8.8%) than non-beneficiaries (4.7%) in Agricultural activities.** On the other hand, a **beneficiaries are less likely to work in the Public Administration**: 3.2% of the beneficiaries and 15.8% of the non-beneficiaries of PBF work in Public Administration. Among a **college graduates**, the **highest concentration of beneficiaries is in public administration (27.1%)** and the **highest concentration of non-beneficiaries is in large companies (29.9%).** ▶

2. Characterization of the studied population

Profile of the PBF dependents aged 7 to 16 in 2005 found in RAIS from 2015 to 2019

imds
instituto mobilidade e
desenvolvimento social

Information as stated in RAIS

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

Skin color or race

	White	Mixed race	Undefined	Black	Asian	Indigenous
Beneficiary PBF 2005	35%	41%	17%	06%	01%	00%
Non-beneficiary PBF	44%	30%	21%	04%	01%	00%

Age Group

	7 to 9 year olds	10 to 16 year olds
Beneficiary PBF 2005	25.9%	74.1%
Non-beneficiary PBF	24.5%	75.5%

Sex

	Women	Men
Beneficiary PBF 2005	41.4%	58.6%
Non-beneficiary PBF	42.8%	57.2%

Population

Beneficiary PBF in 2005	5.195.203
Non-beneficiary PBF	13.174.588

Highlights

Conditions of access to the formal labor market: an analysis of
the 2005 beneficiaries of the PBF | May 2023

Information as stated in RAIS

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF
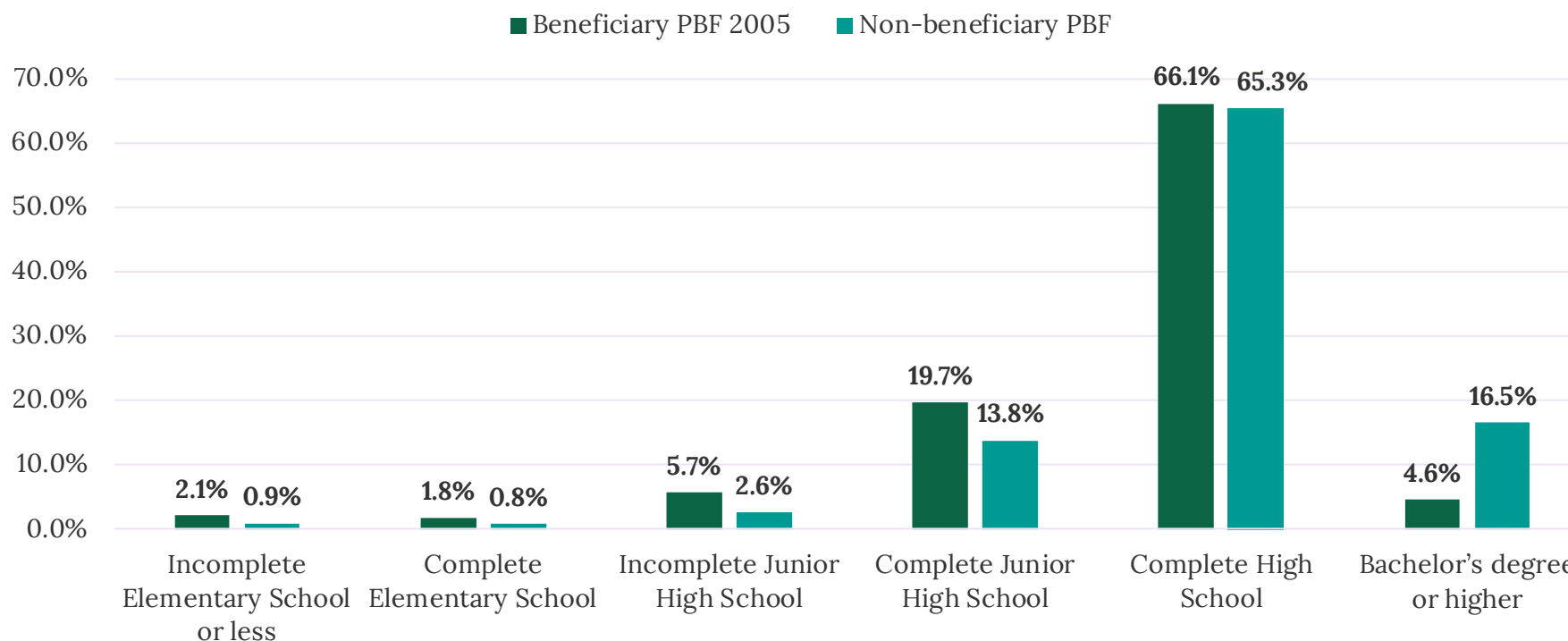
Population						
	Incomplete Elementary School or less	Complete Elementary School	Incomplete Junior High School	Complete Junior High School	Complete High School	Bachelor's degree or higher
Beneficiary PBF 2005	109.909	91.013	296.389	1.022.690	3.435.569	239.633
Non-beneficiary PBF	124.234	104.547	337.265	1.822.868	8.607.645	2.178.029

Highlights

Conditions of access to the formal labor market: an analysis of
the 2005 beneficiaries of the PBF | May 2023
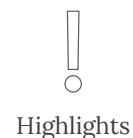
3. Access to the formal labor market (RAIS)
Records of beneficiaries of PBF aged 7 to 16 in RAIS between 2015 to 2019

Permanence in formal employment

About **5.2 million** beneficiaries of the *Bolsa Família* Program in 2005 aged 7 to 16 were found at least once in RAIS between 2015 and 2019.

Situation of 7-to-16-year-old dependent beneficiaries in 2005, between 2015 and 2019	Beneficiários	Distribuição (%)
Total	11.628.308	100,0%
Not found in RAIS	6.433.105	55,3%
Found at some time in RAIS	5.195.203	**44,7%**
Found for 1 year in RAIS	905.573	**7,8%**
Found for 2 years in RAIS	875.040	**7,5%**
Found for 3 years in RAIS	850.901	**7,3%**
Found for 4 years in RAIS	892.818	**7,7%**
Found for 5 years in RAIS	1.670.871	**14,4%**

**Universe of interest:
44.7% accessed the formal labor market at least once between 2015 and 2019.
The following is the distribution of these:**

17.43%
16.84%
16.38%
17.19%
32.16%

■ 1 year ■ 2 years ■ 3 years ■ 4 years ■ 5 years

Highlights
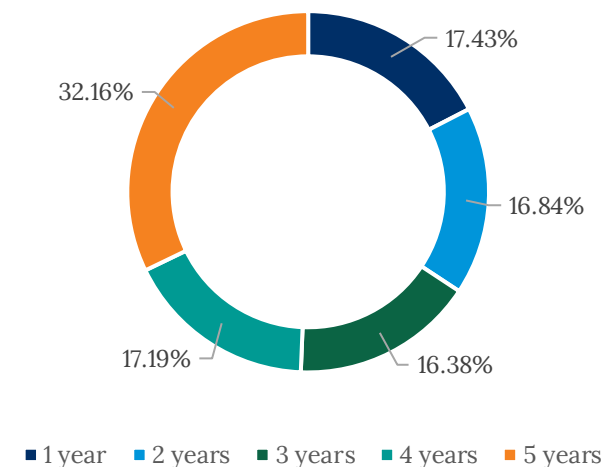
Permanence in formal employment by region of employment
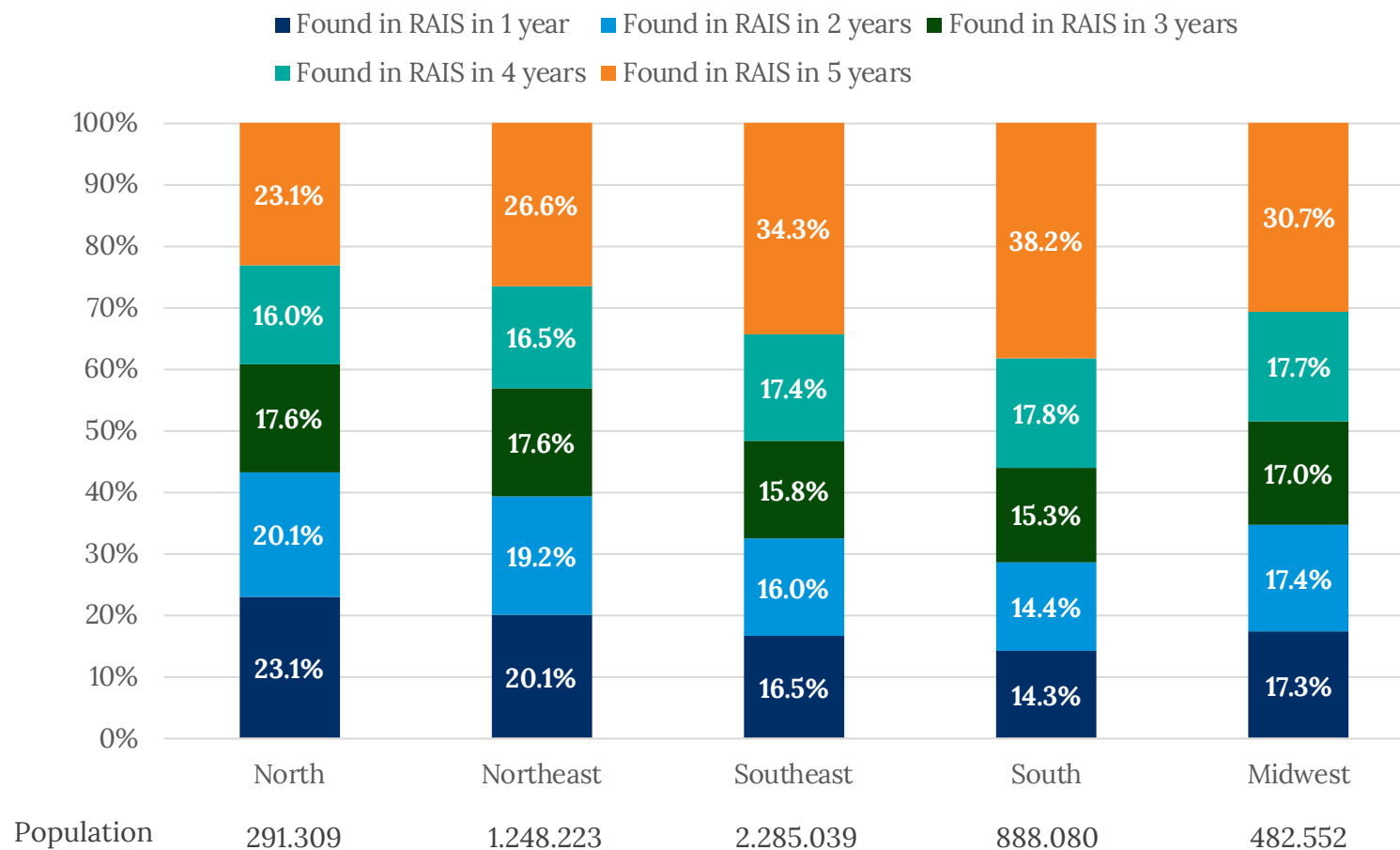
The South and Southeast regions have the highest percentages of beneficiaries found in RAIS over the entire 5-year period conditional on having accessed the formal labor market at least once.

Legend:
- Found in RAIS in 1 year
- Found in RAIS in 2 years
- Found in RAIS in 3 years
- Found in RAIS in 4 years
- Found in RAIS in 5 years

	North	Northeast	Southeast	South	Midwest
Found in RAIS in 5 years	23.1%	26.6%	34.3%	38.2%	30.7%
Found in RAIS in 4 years	16.0%	16.5%	17.4%	17.8%	17.7%
Found in RAIS in 3 years	17.6%	17.6%	15.8%	15.3%	17.0%
Found in RAIS in 2 years	20.1%	19.2%	16.0%	14.4%	17.4%
Found in RAIS in 1 year	23.1%	20.1%	16.5%	14.3%	17.3%
Population	291.309	1.248.223	2.285.039	888.080	482.552

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

Distribution of PBF beneficiaries aged 7 to 16 in 2005 by educational attainment and number of records in RAIS between 2015 and 2019

imds
instituto mobilidade e
desenvolvimento social

■ Found in RAIS in 1 year   ■ Found in RAIS in 2 years   ■ Found in RAIS in 3 years
■ Found in RAIS in 4 years   ■ Found in RAIS in 5 years

	Incomplete Elementary School or less	Complete Elementary School	Incomplete Junior High School	Complete Junior High School	Complete High School	Bachelor's degree or higher
Found in RAIS in 5 years	23.3%	24.5%	25.7%	28.5%	33.6%	41.5%
Found in RAIS in 4 years	15.7%	15.3%	15.8%	16.3%	17.7%	16.8%
Found in RAIS in 3 years	16.5%	16.1%	16.1%	16.3%	16.5%	15.8%
Found in RAIS in 2 years	19.6%	19.7%	19.1%	18.4%	16.3%	13.4%
Found in RAIS in 1 year	24.9%	24.4%	23.3%	20.5%	15.9%	12.5%
Population	109.909	91.013	296.389	1.022.690	3.435.569	239.633

Highlights

Conditions of access to the formal labor market: an analysis of
the 2005 beneficiaries of the PBF | May 2023

Distribution of PBF beneficiaries aged 7 to 16 in 2005 by sex, skin color or race and number records in RAIS between 2015 and 2019

imds
instituto mobilidade e
desenvolvimento social

- Found in RAIS in 1 year
- Found in RAIS in 2 years
- Found in RAIS in 3 years
- Found in RAIS in 4 years
- Found in RAIS in 5 years

	Men	Women	White	Asian	Black	Mixed race	Indigenous
Found in RAIS in 5 years	33.7%	29.9%	35.9%	32.6%	32.5%	30.3%	29.0%
Found in RAIS in 4 years	17.6%	16.6%	17.2%	16.9%	17.2%	17.0%	16.3%
Found in RAIS in 3 years	16.2%	16.6%	15.5%	16.0%	16.0%	16.3%	17.3%
Found in RAIS in 2 years	16.2%	17.7%	15.5%	16.8%	16.8%	17.7%	18.2%
Found in RAIS in 1 year	16.2%	19.2%	15.8%	17.8%	17.5%	18.7%	19.1%
Population	3.043.221	2.151.982	1.815.388	27.330	316.867	2.117.030	11.023

Distribution of PBF beneficiaries aged 7 to 16 in 2005 by number of records in RAIS between 2015 and 2019 and age group

imds
instituto mobilidade e
desenvolvimento social

■ Found in RAIS in 1 year ■ Found in RAIS in 2 years ■ Found in RAIS in 3 years
■ Found in RAIS in 4 years ■ Found in RAIS in 5 years

As expected, younger dependent beneficiaries in 2005, in the 7-to-9-year age range, were found less often in RAIS. In 2015 they were 17-to-19-year-olds. In 2019 the range was 21-to-23-year-olds.

7 to 9 year olds
- 17.5%
- 16.8%
- 20.0%
- 22.6%
- 23.1%

10 to 16 year olds
- 37.3%
- 17.3%
- 15.1%
- 14.8%
- 15.5%

Population	1.345.670	3.849.533

www.imdsbrasil.org
Conditions of access to the formal labor market: an analysis of
the 2005 beneficiaries of the PBF | May 2023
21

4. Conditions of access to the formal labor market

PBF beneficiaries aged 7 to 16 in 2005 and non-beneficiaries of the PBF (not in the program between 2005 and 2019)

How do the salaries of those who were beneficiaries of the PBF in 2005 differ from those who were not beneficiaries of the PBF between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social

Salaries as multiples of the minimum wage

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	Up to 0.5 MW	from 0.51 to 1.00 MW	from 1.01 to 1.50 MW	from 1.51 to 2.00 MW	from 2.01 to 3.00 MW	from 3.01 to 4.00 MW	from 4.01 to 10.00 MW	More than 10.00 MW
Beneficiary PBF 2005	1.0%	10.7%	50.9%	22.5%	10.9%	2.5%	1.5%	0.1%
Non-beneficiary PBF	0.9%	8.7%	38.8%	22.9%	15.4%	5.9%	6.5%	0.9%

How do the levels of remuneration of those who were beneficiaries of the PBF in 2005 differ from those who were not beneficiaries of the PBF between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social
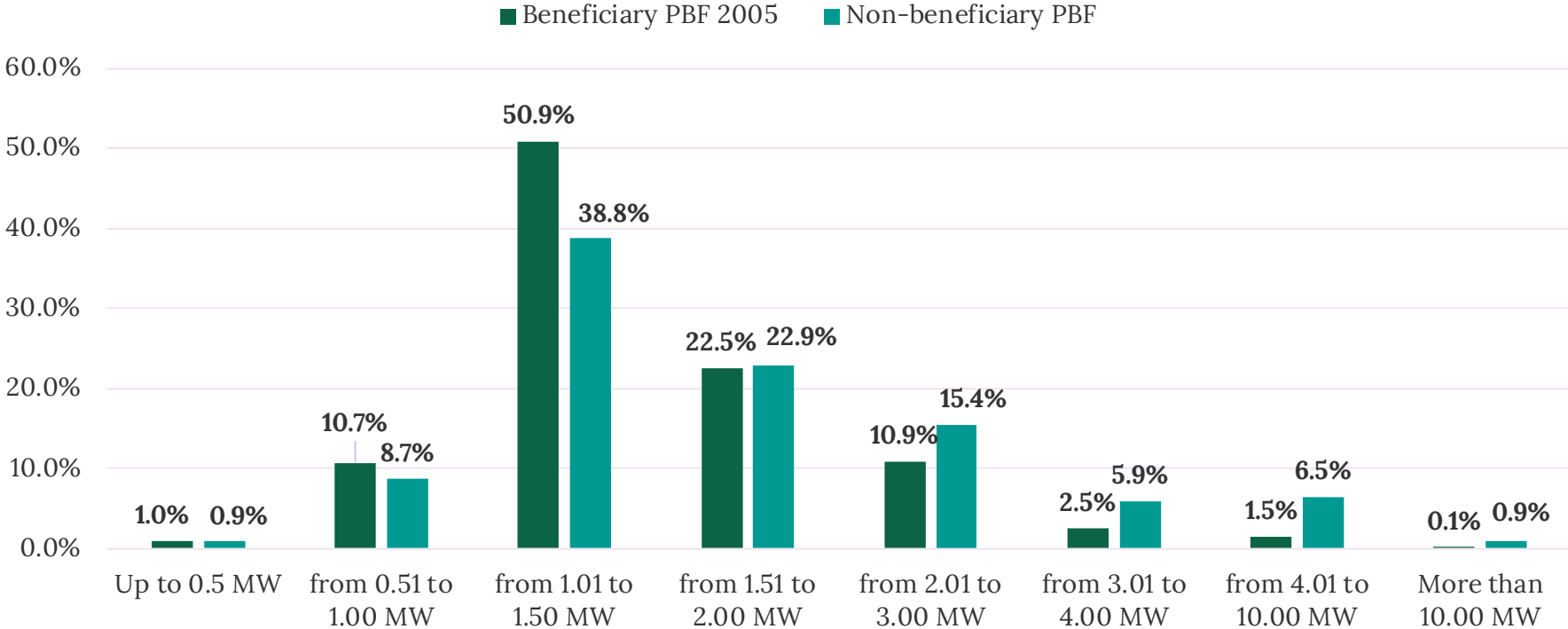
Level of remuneration in minimum wage ranges – by level of education

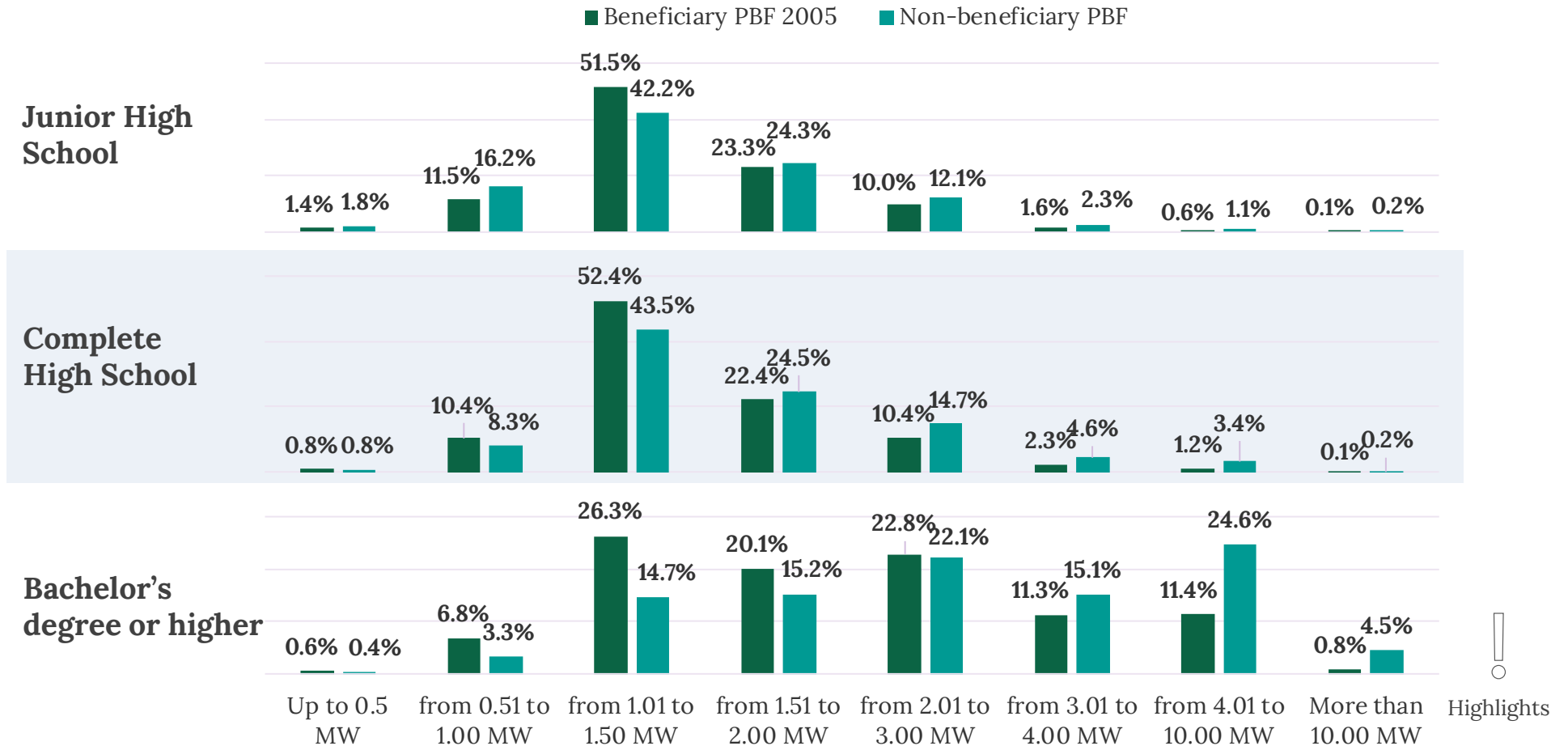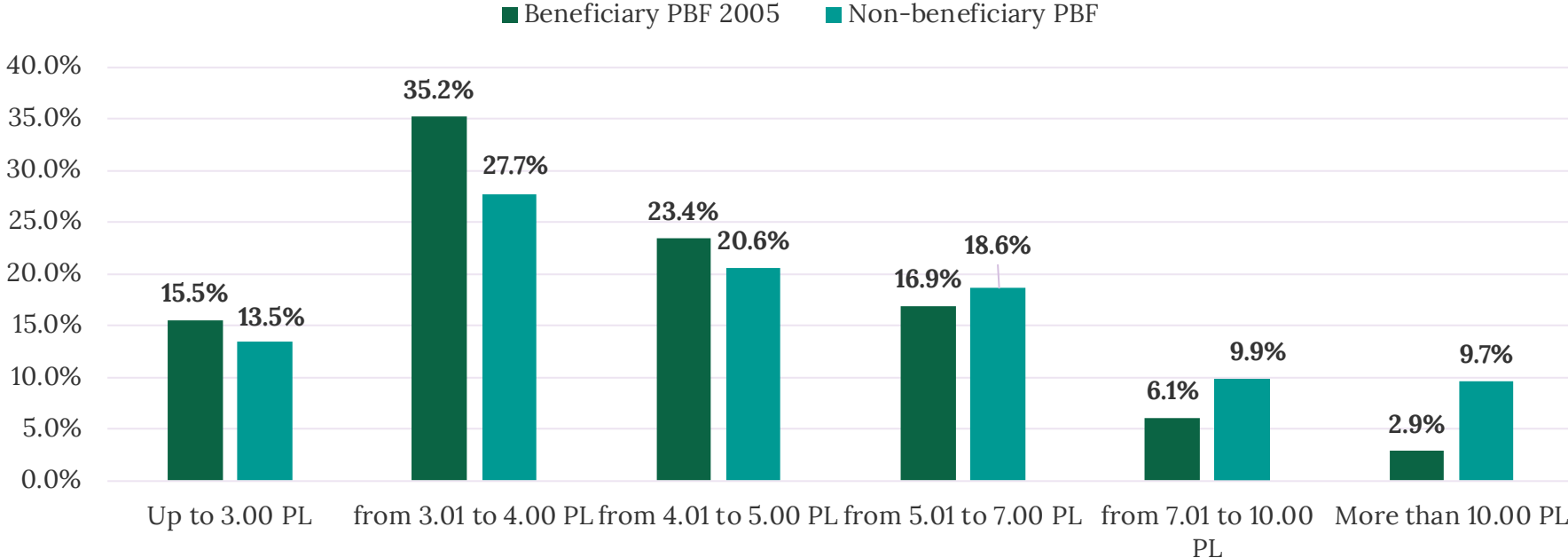Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

Junior High School

	Up to 0.5 MW	from 0.51 to 1.00 MW	from 1.01 to 1.50 MW	from 1.51 to 2.00 MW	from 2.01 to 3.00 MW	from 3.01 to 4.00 MW	from 4.01 to 10.00 MW	More than 10.00 MW
Beneficiary	1.4%	11.5%	51.5%	23.3%	10.0%	1.6%	0.6%	0.1%
Non-beneficiary	1.8%	16.2%	42.2%	24.3%	12.1%	2.3%	1.1%	0.2%

Complete High School

	Up to 0.5 MW	from 0.51 to 1.00 MW	from 1.01 to 1.50 MW	from 1.51 to 2.00 MW	from 2.01 to 3.00 MW	from 3.01 to 4.00 MW	from 4.01 to 10.00 MW	More than 10.00 MW
Beneficiary	0.8%	10.4%	52.4%	22.4%	10.4%	2.3%	1.2%	0.1%
Non-beneficiary	0.8%	8.3%	43.5%	24.5%	14.7%	4.6%	3.4%	0.2%

Bachelor's degree or higher

	Up to 0.5 MW	from 0.51 to 1.00 MW	from 1.01 to 1.50 MW	from 1.51 to 2.00 MW	from 2.01 to 3.00 MW	from 3.01 to 4.00 MW	from 4.01 to 10.00 MW	More than 10.00 MW
Beneficiary	0.6%	6.8%	26.3%	20.1%	22.8%	11.3%	11.4%	0.8%
Non-beneficiary	0.4%	3.3%	14.7%	15.2%	22.1%	15.1%	24.6%	4.5%

Highlights

Level of remuneration in multiples of the poverty line

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	Up to 3.00 PL	from 3.01 to 4.00 PL	from 4.01 to 5.00 PL	from 5.01 to 7.00 PL	from 7.01 to 10.00 PL	More than 10.00 PL
Beneficiary PBF 2005	15.5%	35.2%	23.4%	16.9%	6.1%	2.9%
Non-beneficiary PBF	13.5%	27.7%	20.6%	18.6%	9.9%	9.7%

How do the levels of remuneration of those who were beneficiaries of the PBF in 2005 differ from those who were not beneficiaries of the PBF between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social

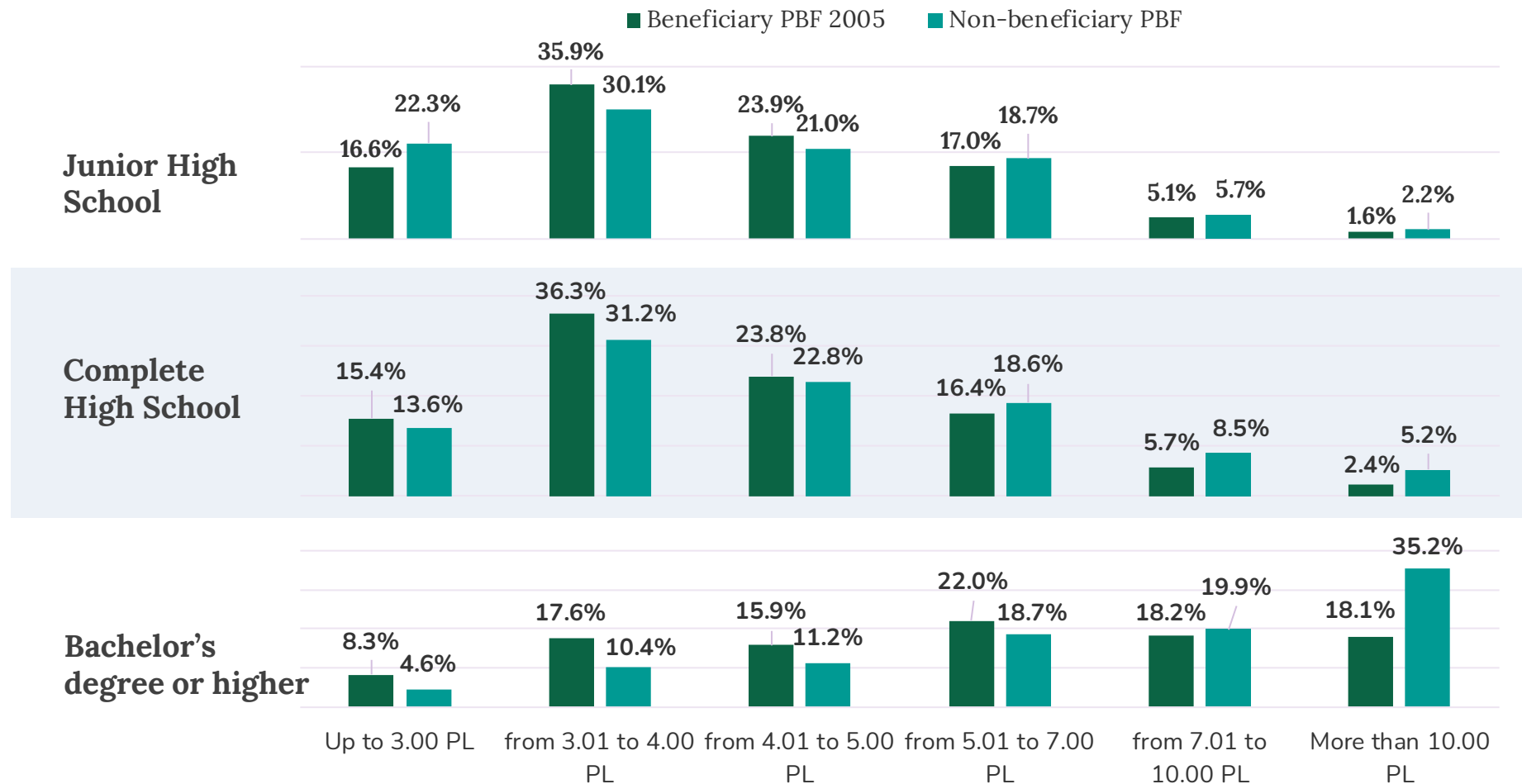## Level of remuneration in poverty line ranges – by level of education

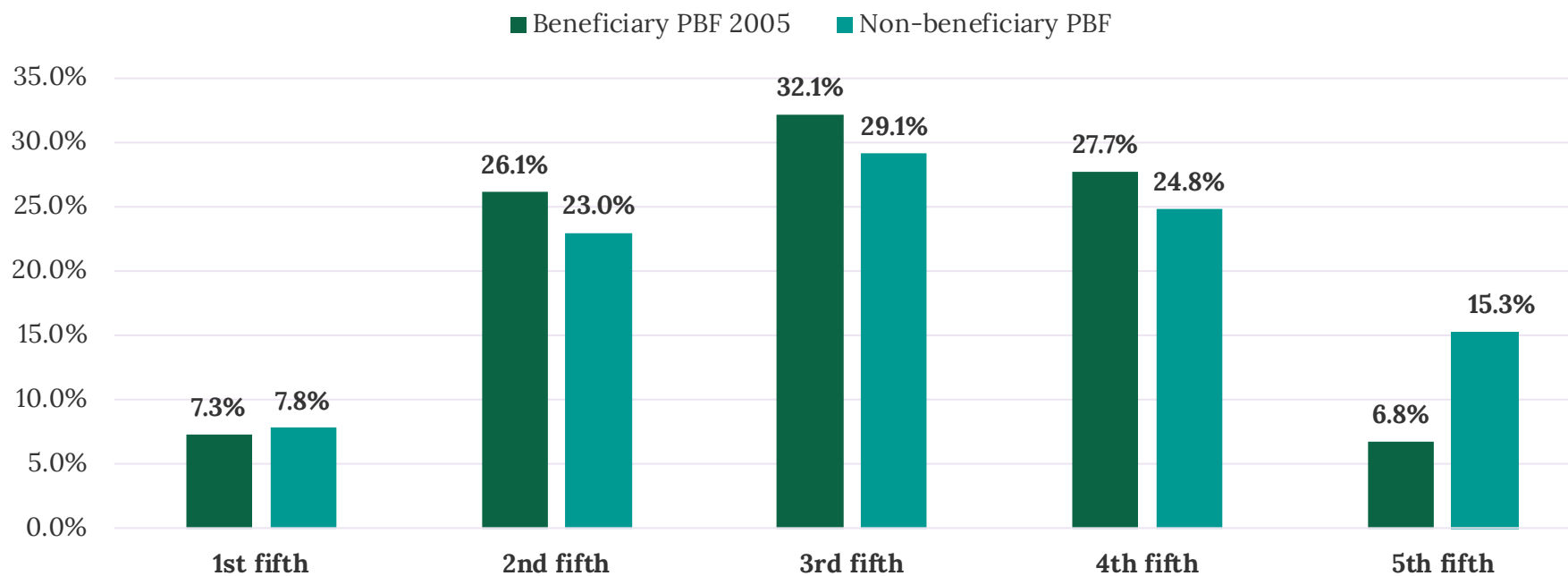Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

Junior High School

	Up to 3.00 PL	from 3.01 to 4.00 PL	from 4.01 to 5.00 PL	from 5.01 to 7.00 PL	from 7.01 to 10.00 PL	More than 10.00 PL
Beneficiary PBF 2005	16.6%	35.9%	23.9%	17.0%	5.1%	1.6%
Non-beneficiary PBF	22.3%	30.1%	21.0%	18.7%	5.7%	2.2%

Complete High School

	Up to 3.00 PL	from 3.01 to 4.00 PL	from 4.01 to 5.00 PL	from 5.01 to 7.00 PL	from 7.01 to 10.00 PL	More than 10.00 PL
Beneficiary PBF 2005	15.4%	36.3%	23.8%	16.4%	5.7%	2.4%
Non-beneficiary PBF	13.6%	31.2%	22.8%	18.6%	8.5%	5.2%

Bachelor's degree or higher

	Up to 3.00 PL	from 3.01 to 4.00 PL	from 4.01 to 5.00 PL	from 5.01 to 7.00 PL	from 7.01 to 10.00 PL	More than 10.00 PL
Beneficiary PBF 2005	8.3%	17.6%	15.9%	22.0%	18.2%	18.1%
Non-beneficiary PBF	4.6%	10.4%	11.2%	18.7%	19.9%	35.2%

How do the salaries of those who were beneficiaries of the PBF in 2005 differ from those who were not beneficiaries of the PBF between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social

Position in the fifths of the distribution of national labor remuneration (based on the PNADC)

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.
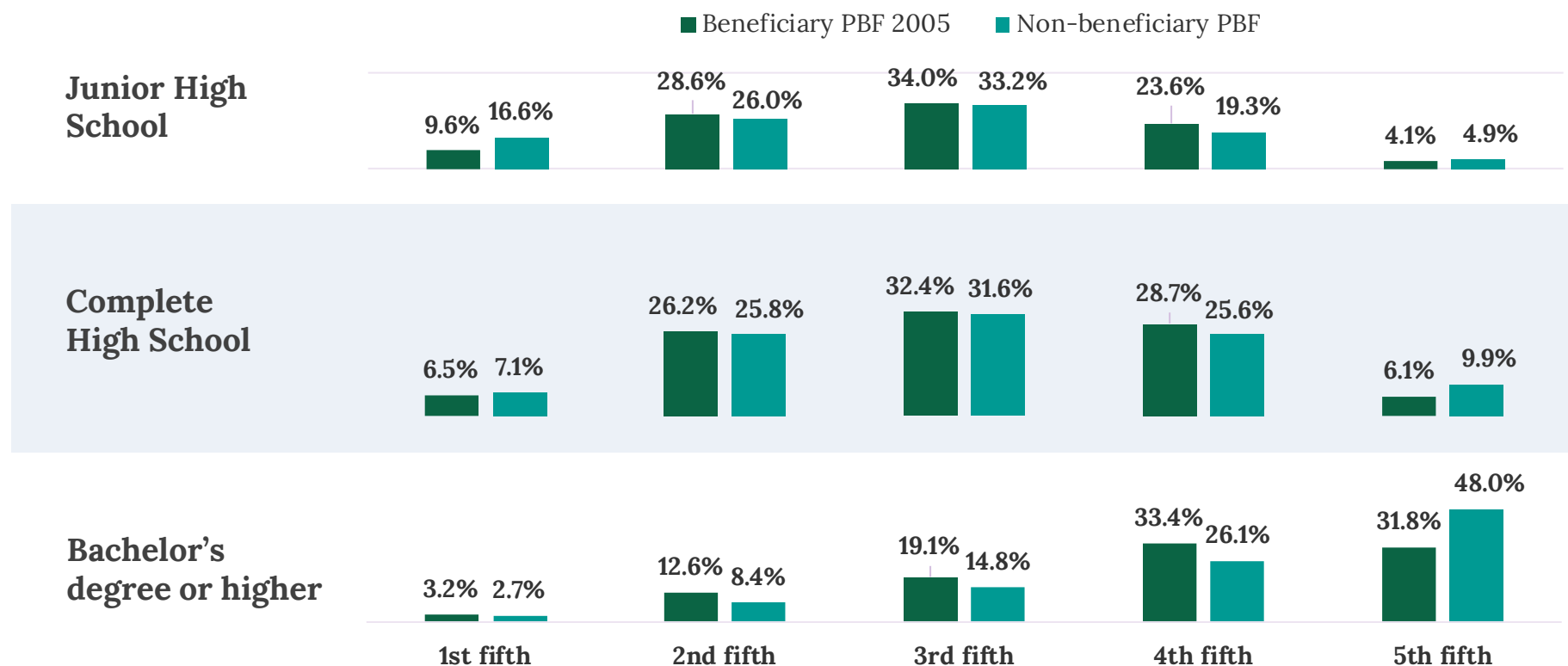

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	7.3%	26.1%	32.1%	27.7%	6.8%
Non-beneficiary PBF	7.8%	23.0%	29.1%	24.8%	15.3%

O **1st fifth encompasses the lowest incomes and the 5th fifth is where the highest incomes are**.

imds
instituto mobilidade e
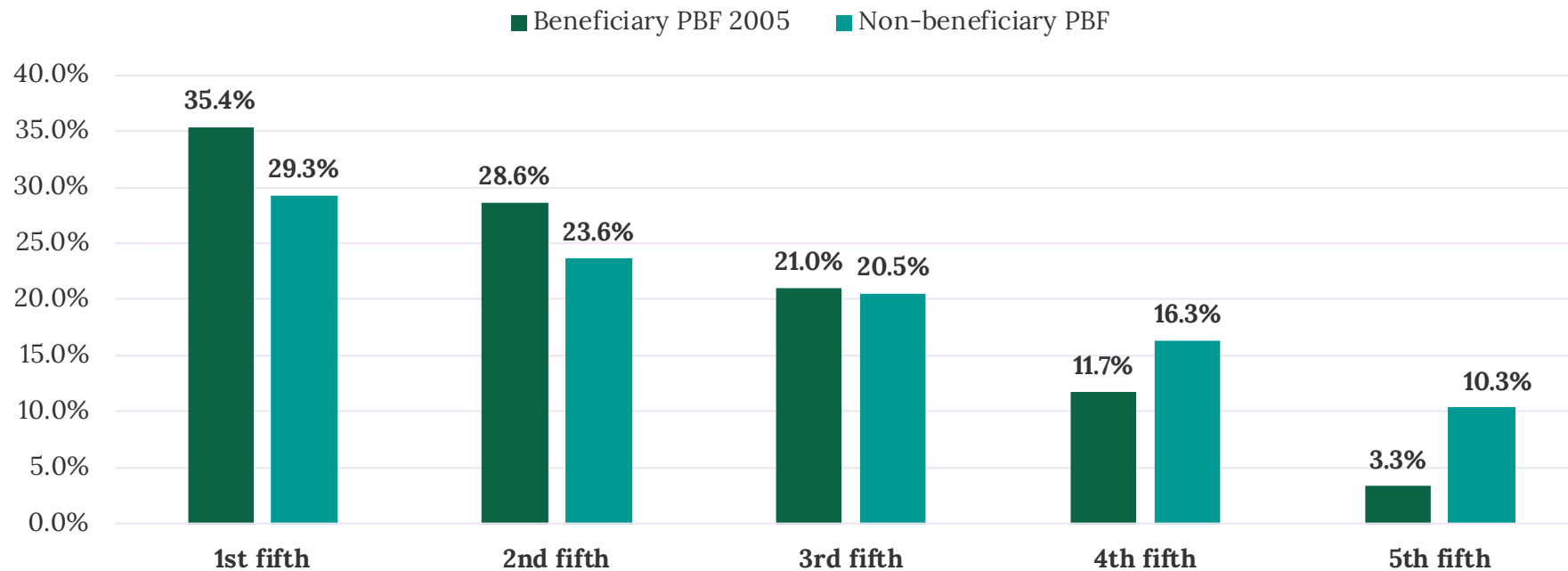desenvolvimento social

Position in the fifths of the national distribution of labor income (based on the PNADC) – by level of education

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019

■ Beneficiary PBF 2005 ■ Non-beneficiary PBF

Junior High School

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	9.6%	28.6%	34.0%	23.6%	4.1%
Non-beneficiary PBF	16.6%	26.0%	33.2%	19.3%	4.9%

Complete High School

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	6.5%	26.2%	32.4%	28.7%	6.1%
Non-beneficiary PBF	7.1%	25.8%	31.6%	25.6%	9.9%

Bachelor's degree or higher

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	3.2%	12.6%	19.1%	33.4%	31.8%
Non-beneficiary PBF	2.7%	8.4%	14.8%	26.1%	48.0%

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

Position in the fifths of the distribution of formal wages (based on RAIS)

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	35.4%	28.6%	21.0%	11.7%	3.3%
Non-beneficiary PBF	29.3%	23.6%	20.5%	16.3%	10.3%

The 1st fifth encompasses the lowest incomes and the 5th fifth is where the highest incomes are.

Highlights

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

How do the levels of remuneration of those who were beneficiaries of the PBF in 2005 differ from those who were not beneficiaries of the PBF between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social

Position in the fifths of the distribution of formal wages (based on RAIS) – by level of education

Considering dependent beneficiaries aged 7 to 16 years of the PBF in 2005 and non-beneficiaries of the PBF between 2005 and 2019 who were of the same age group in 2005.
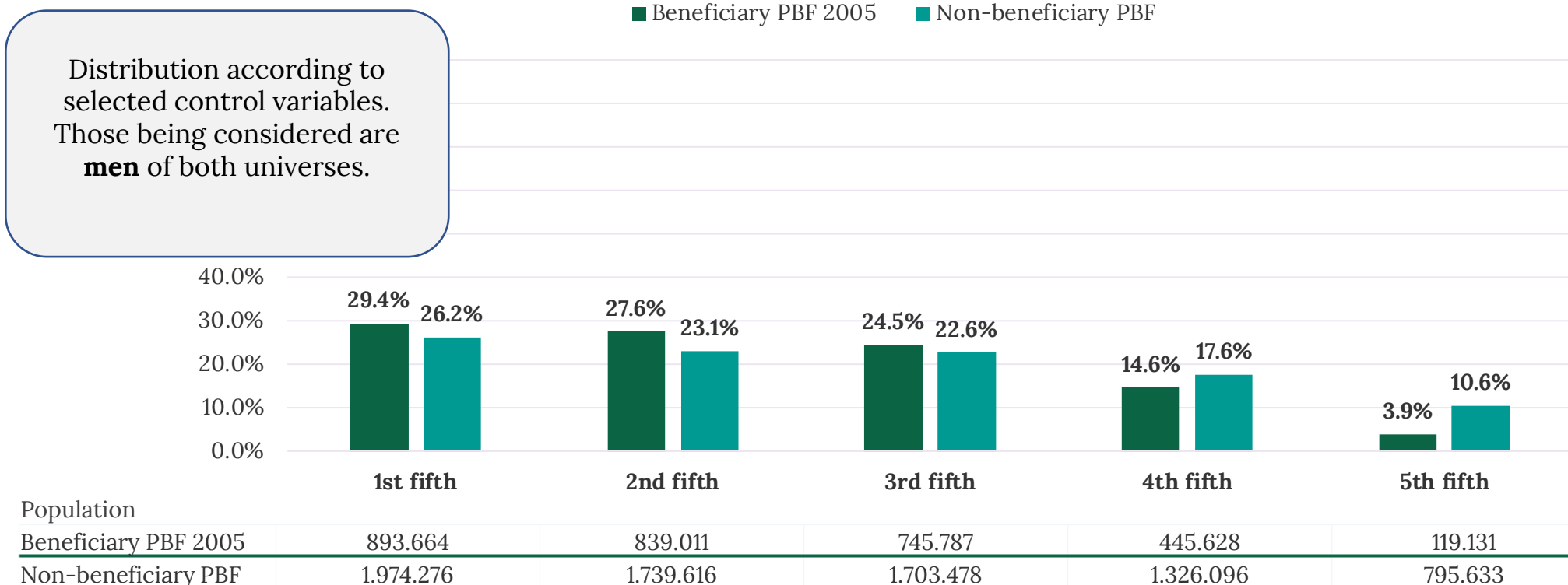

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

Complete Junior High School

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	38.8%	28.7%	20.8%	9.9%	1.8%
Non-beneficiary PBF	40.5%	25.4%	21.3%	10.3%	2.5%

Complete High School

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	35,1%	29,7%	21,1%	11,3%	2,8%
Non-beneficiary PBF	31,2%	26,5%	21,7%	15,0%	5,7%

Bachelor's degree or higher

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	17.1%	15.0%	19.7%	27.2%	20.9%
Non-beneficiary PBF	10.2%	9.9%	15.0%	27.4%	37.4%

Highlights

imds
instituto mobilidade e
desenvolvimento social
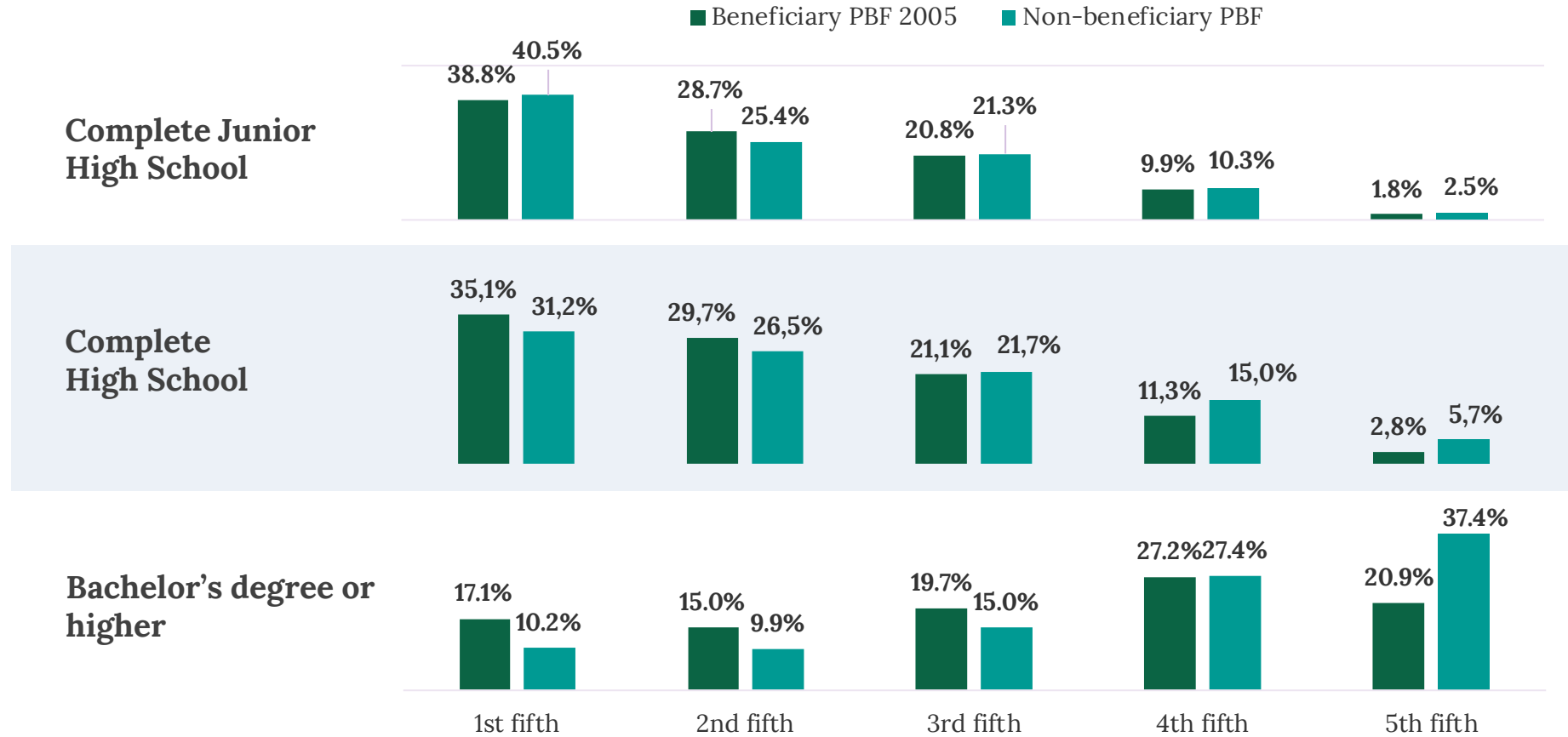
Position in the fifths of the distribution of formal salaries (based on RAIS)
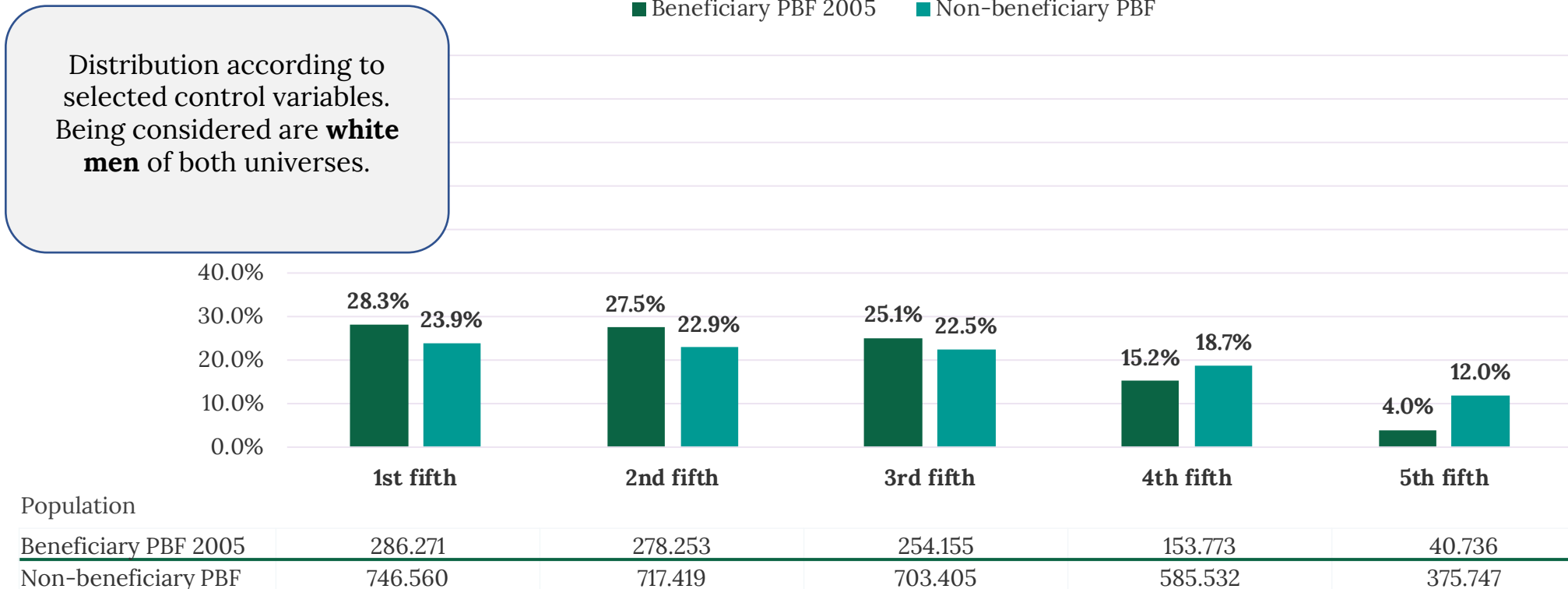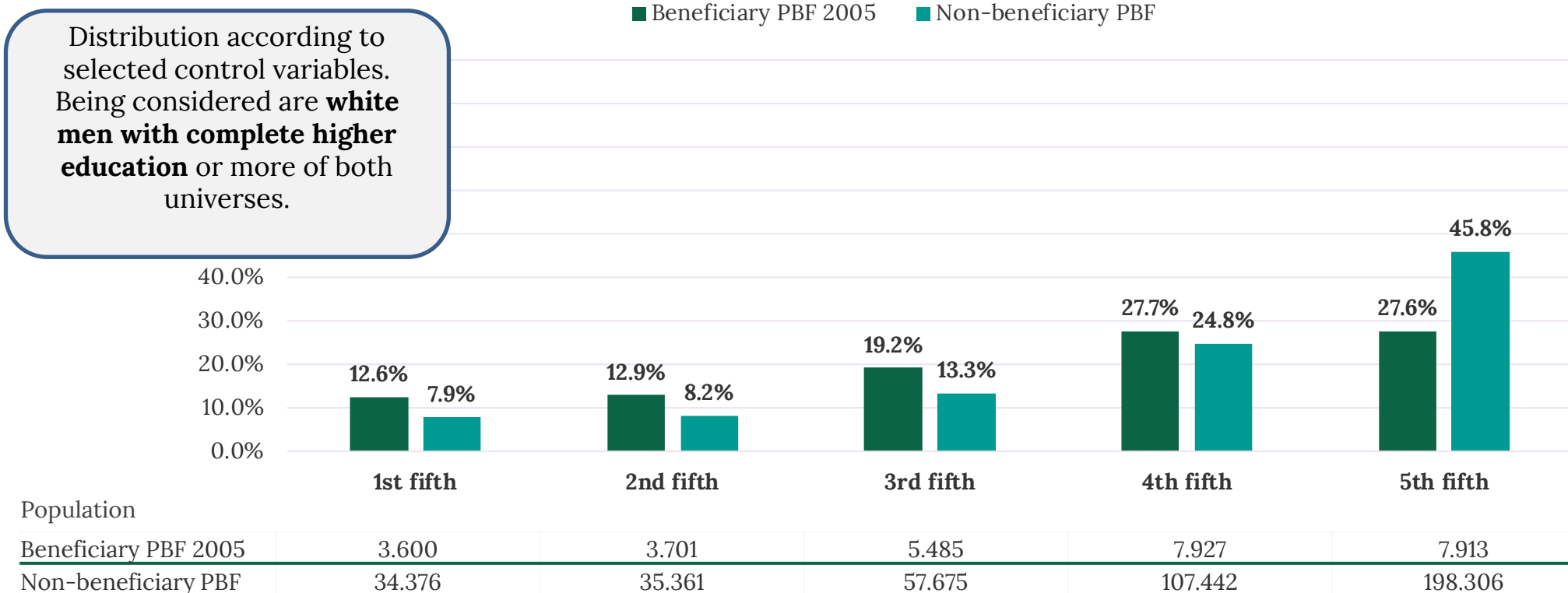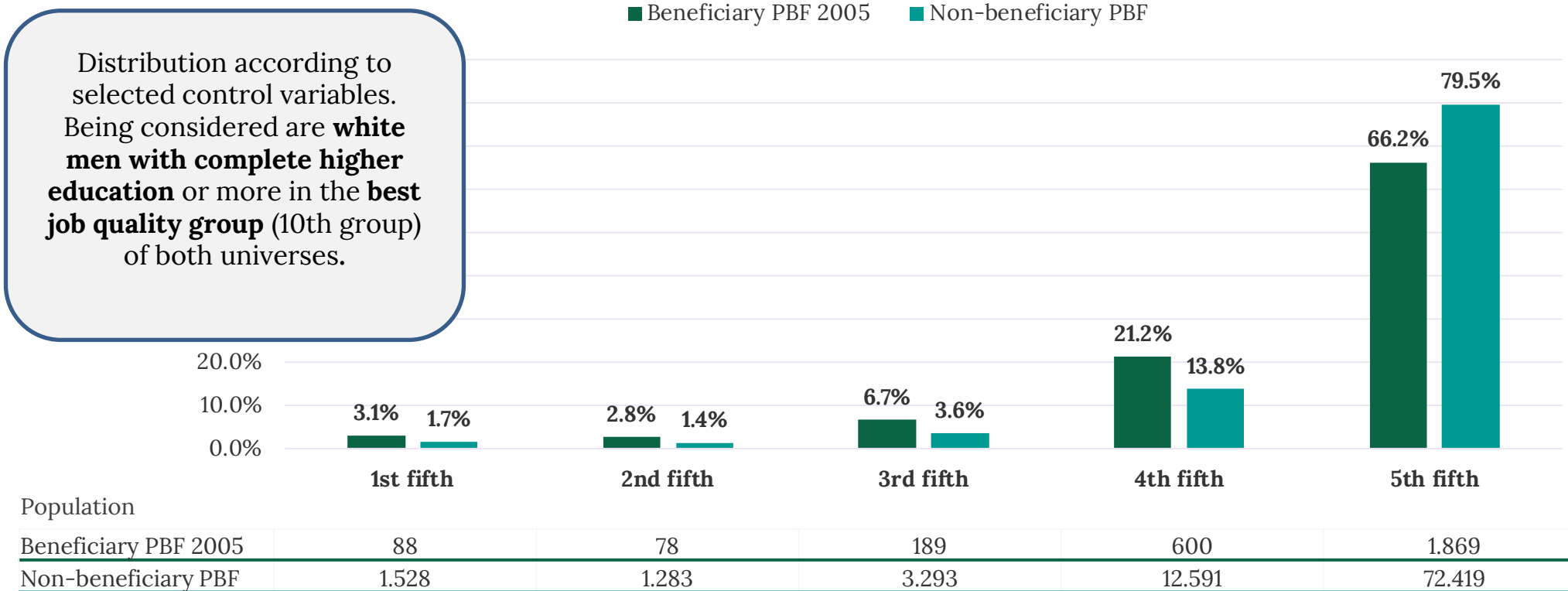
Control by sex

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

Distribution according to selected control variables. Those being considered are **men** of both universes.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	29.4%	27.6%	24.5%	14.6%	3.9%
Non-beneficiary PBF	26.2%	23.1%	22.6%	17.6%	10.6%

Population	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	893.664	839.011	745.787	445.628	119.131
Non-beneficiary PBF	1.974.276	1.739.616	1.703.478	1.326.096	795.633

imds
instituto mobilidade e
desenvolvimento social

Position in the fifths of the distribution of formal salaries (based on RAIS)
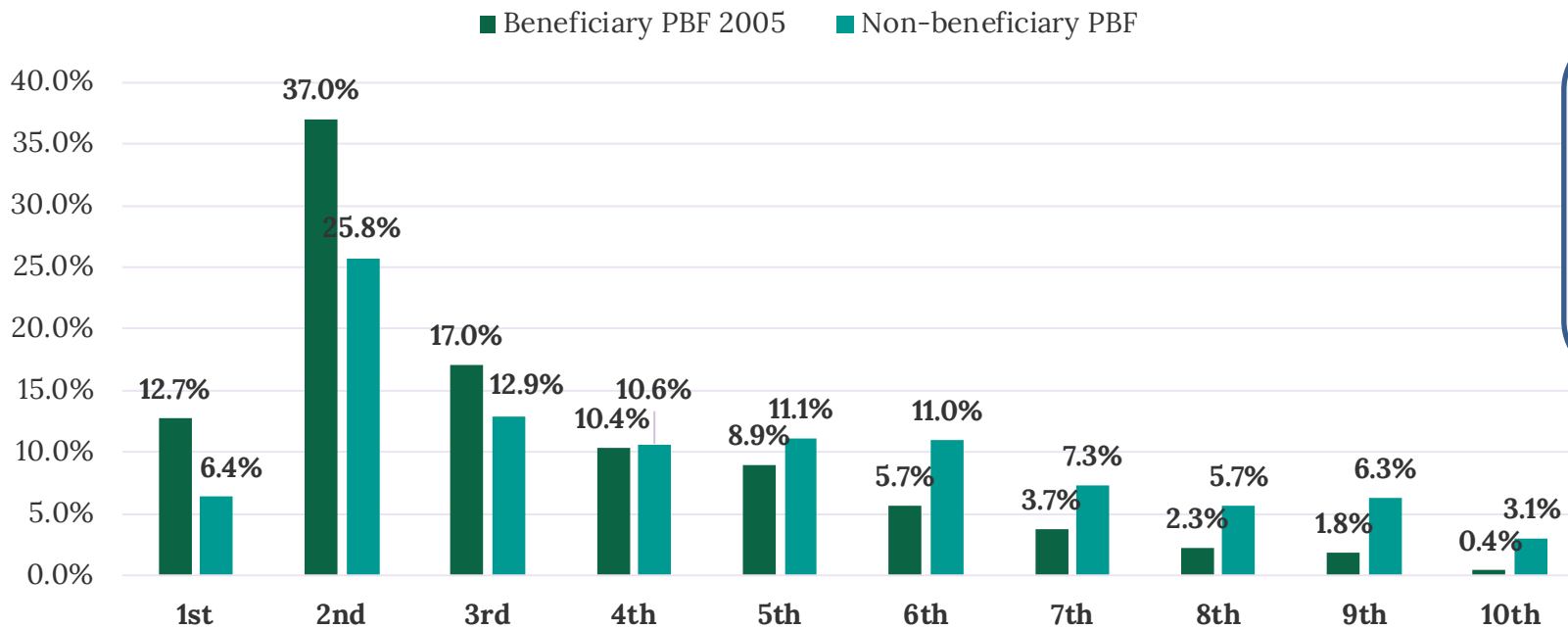
Control by sex and skin color or race

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

Distribution according to selected control variables. Being considered are **white men** of both universes.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	28.3%	27.5%	25.1%	15.2%	4.0%
Non-beneficiary PBF	23.9%	22.9%	22.5%	18.7%	12.0%

Population					
Beneficiary PBF 2005	286.271	278.253	254.155	153.773	40.736
Non-beneficiary PBF	746.560	717.419	703.405	585.532	375.747

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

Position in the fifths of the distribution of formal salaries (based on RAIS)

Control by sex, skin color or race, and level of education

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

> Distribution according to selected control variables. Being considered are **white men with complete higher education** or more of both universes.

Legend: ■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	12.6%	12.9%	19.2%	27.7%	27.6%
Non-beneficiary PBF	7.9%	8.2%	13.3%	24.8%	45.8%

Population

Population	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	3.600	3.701	5.485	7.927	7.913
Non-beneficiary PBF	34.376	35.361	57.675	107.442	198.306

Position in the fifths of the distribution of formal salaries (based on RAIS)

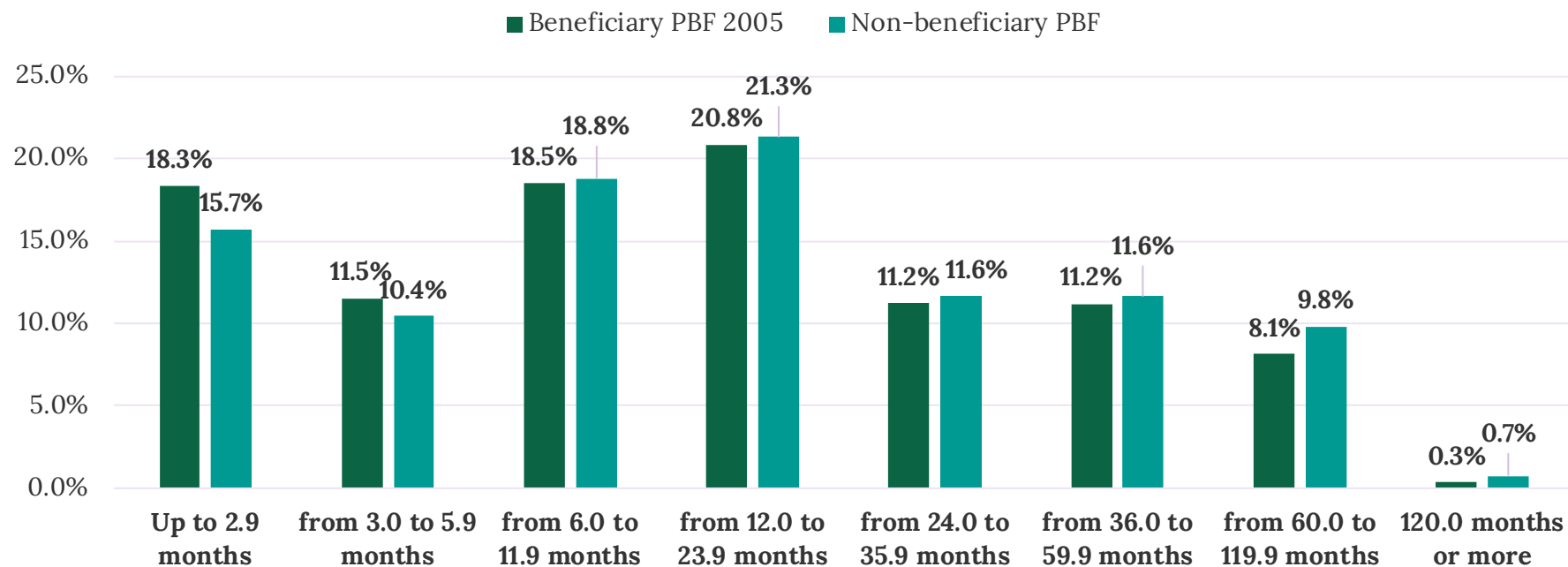**Control by sex, skin color or race, level of education and quality of employment**

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

> Distribution according to selected control variables. Being considered are **white men with complete higher education** or more in the **best job quality group** (10th group) of both universes.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	3.1%	2.8%	6.7%	21.2%	66.2%
Non-beneficiary PBF	1.7%	1.4%	3.6%	13.8%	79.5%

Population	1st fifth	2nd fifth	3rd fifth	4th fifth	5th fifth
Beneficiary PBF 2005	88	78	189	600	1.869
Non-beneficiary PBF	1.528	1.283	3.293	12.591	72.419

Position in job quality groups

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Beneficiary PBF 2005	12.7%	37.0%	17.0%	10.4%	8.9%	5.7%	3.7%	2.3%	1.8%	0.4%
Non-beneficiary PBF	6.4%	25.8%	12.9%	10.6%	11.1%	11.0%	7.3%	5.7%	6.3%	3.1%

The 1st group is formed by the economic activities-occupations of lower "quality" and the 10th group by those of higher "quality", considering the proposed criteria. To learn more, visit the methodological note.

Highlights

How does the quality of employment of PBF beneficiaries in 2005 differ from those who were not PBF beneficiaries between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social

Position in job quality groups – by level of education

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019
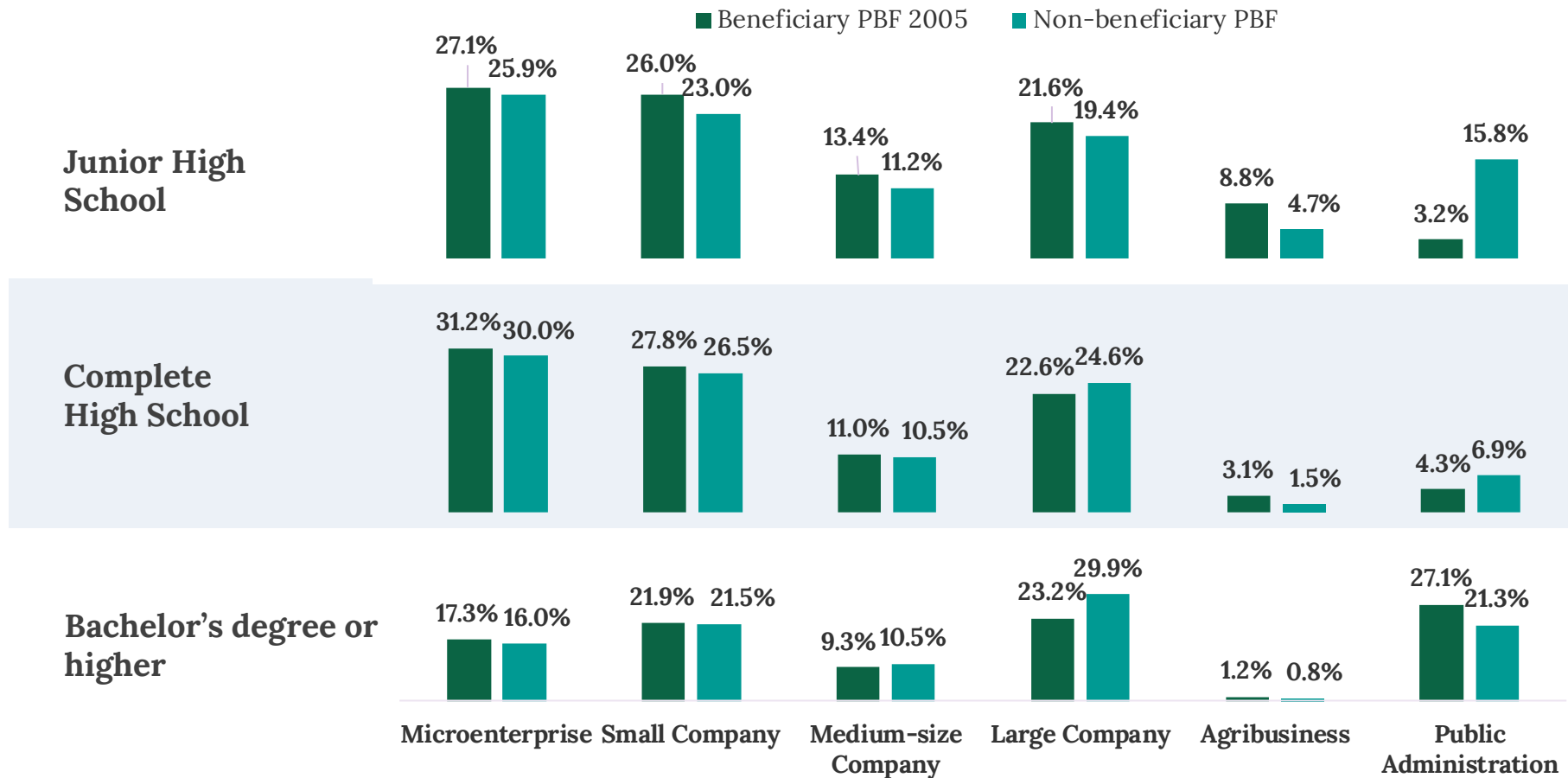
■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

Junior High School

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Beneficiary PBF 2005	18.4%	38.1%	20.3%	9.7%	7.0%	4.1%	1.6%	0.7%	0.1%	0.0%
Non-beneficiary PBF	12.2%	30.2%	17.1%	10.2%	8.8%	16.7%	2.7%	1.5%	0.3%	0.1%

Complete High School

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Beneficiary PBF 2005	10.6%	38.3%	16.4%	11.2%	10.0%	6.4%	4.2%	2.1%	0.8%	0.1%
Non-beneficiary PBF	5.8%	29.7%	14.1%	12.4%	13.0%	10.6%	7.4%	4.3%	2.1%	0.5%

Bachelor's degree or higher

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Beneficiary PBF 2005	1.0%	7.2%	4.3%	5.7%	8.2%	10.7%	12.2%	15.6%	28.0%	7.1%
Non-beneficiary PBF	0.3%	3.8%	2.2%	4.1%	6.5%	9.6%	12.0%	15.7%	29.5%	16.4%

Highlights

Length of stay in the last job

Considering dependent beneficiaries aged 7 to 16 years of the PBF in 2005 and non-beneficiaries of the PBF between 2005 and 2019 who were of the same age group in 2005.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

	Up to 2.9 months	from 3.0 to 5.9 months	from 6.0 to 11.9 months	from 12.0 to 23.9 months	from 24.0 to 35.9 months	from 36.0 to 59.9 months	from 60.0 to 119.9 months	120.0 months or more
Beneficiary PBF 2005	18.3%	11.5%	18.5%	20.8%	11.2%	11.2%	8.1%	0.3%
Non-beneficiary PBF	15.7%	10.4%	18.8%	21.3%	11.6%	11.6%	9.8%	0.7%

How is the length of stay in employment of PBF beneficiaries in 2005 different from those who were not PBF beneficiaries between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social

Length of stay in the last job – by level of education

Considering dependent beneficiaries aged 7 to 16 years of the PBF in 2005 and non-beneficiaries of the PBF between 2005 and 2019 who were of the same age group in 2005.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

Junior High School

20.0% 16.0% | 12.0% 9.8% | 18.3% 22.3% | 19.9% 20.4% | 10.5% 10.4% | 10.8% 10.9% | 8.2% 9.4% | 0.4% 0.8%

Complete High School

17.4% 16.5% | 10.9% 10.3% | 18.0% 17.7% | 21.6% 21.6% | 11.9% 11.9% | 11.7% 11.7% | 8.2% 9.6% | 0.3% 0.6%

Bachelor's degree or higher

11.1% 10.4% | 10.8% 10.3% | 22.9% 20.0% | 20.9% 21.7% | 11.5% 12.2% | 11.6% 12.6% | 10.5% 11.9% | 0.7% 0.9%

Up to 2.9 months | from 3.0 to 5.9 months | from 6.0 to 11.9 months | from 12.0 to 23.9 months | from 24.0 to 35.9 months | from 36.0 to 59.9 months | from 60.0 to 119.9 months | 120.0 months or more
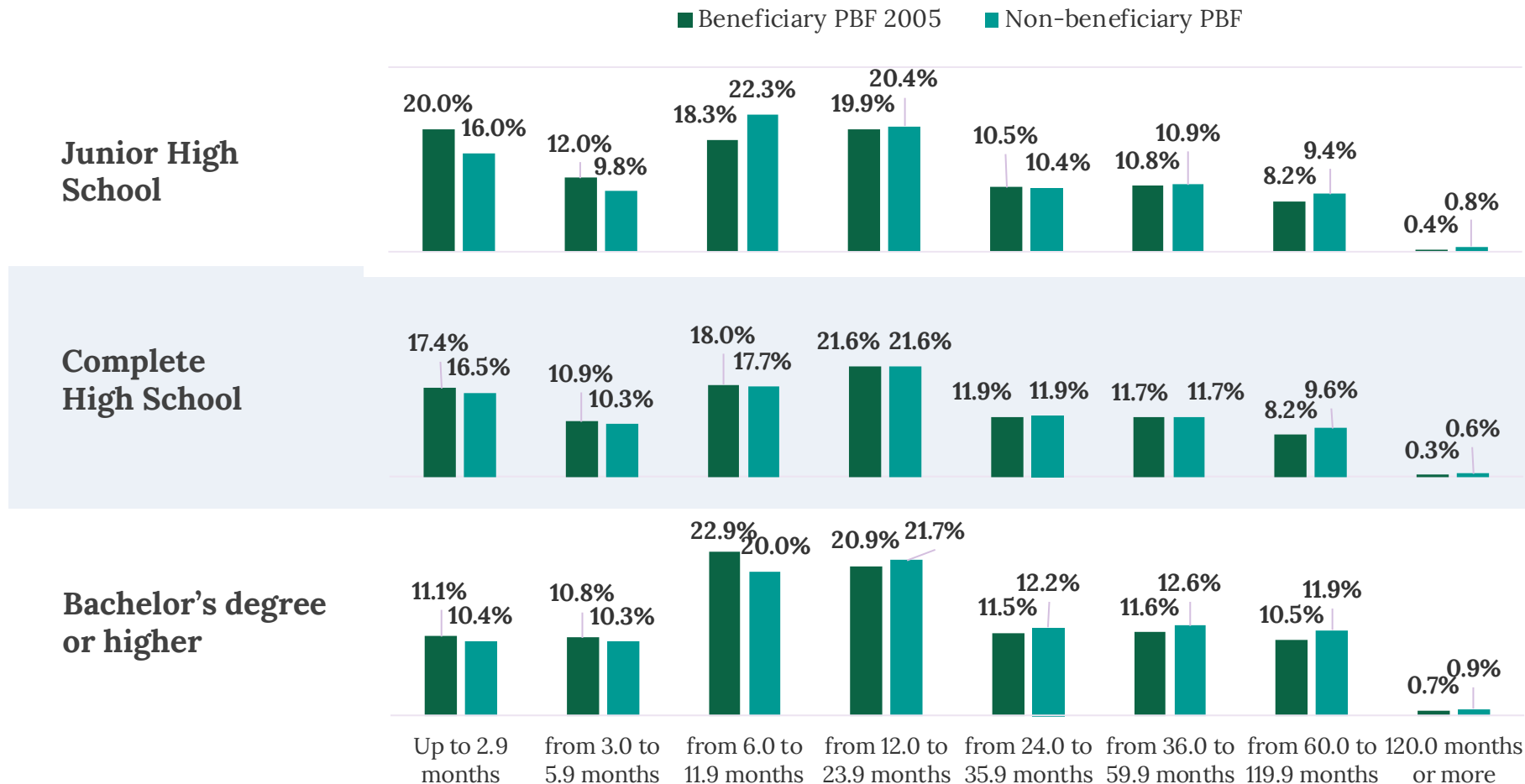
How is access to employment of PBF beneficiaries in 2005 different from those who were not PBF beneficiaries between 2005 and 2019?

imds
instituto mobilidade e
desenvolvimento social

Company size

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

■ Beneficiary PBF 2005 ■ Non-beneficiary PBF

	Microenterprise	Small Company	Medium-size Company	Large Company	Agribusiness	Public Administration
Beneficiary PBF 2005	28.7%	26.4%	11.6%	22.5%	5.9%	4.9%
Non-beneficiary PBF	26.7%	24.9%	10.7%	24.7%	2.5%	10.4%
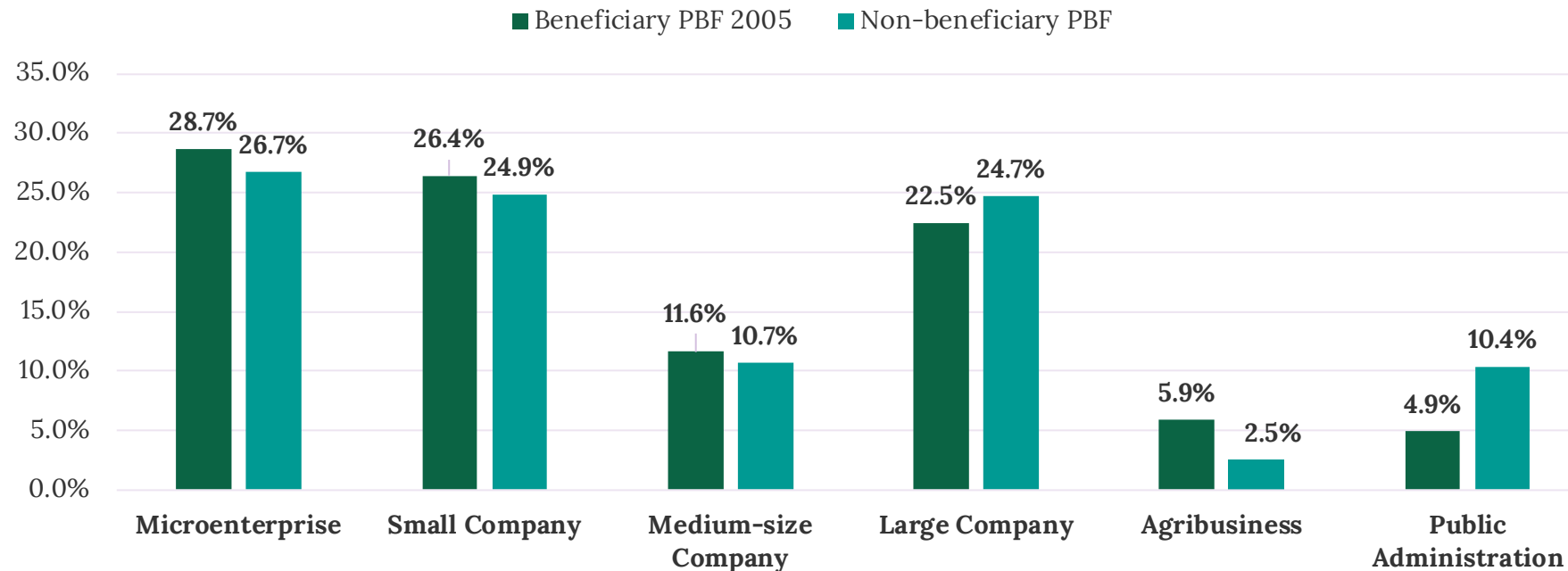
Note: **Domestic service activity** was not shown in the visualization because it was residual: 358 dependent beneficiaries aged 7 to 16 years and 548 non-beneficiaries of the same age group were in this activity.

imds
instituto mobilidade e
desenvolvimento social

Company size – by level of education

Comparing PBF beneficiaries aged 7 to 16 in 2005 and children aged 7 to 16 in 2005 who were not beneficiaries of the PBF between 2005 and 2019.

■ Beneficiary PBF 2005   ■ Non-beneficiary PBF

Junior High School

	Beneficiary	Non-beneficiary
Microenterprise	27.1%	25.9%
Small Company	26.0%	23.0%
Medium-size Company	13.4%	11.2%
Large Company	21.6%	19.4%
Agribusiness	8.8%	4.7%
Public Administration	3.2%	15.8%

Complete High School

	Beneficiary	Non-beneficiary
Microenterprise	31.2%	30.0%
Small Company	27.8%	26.5%
Medium-size Company	11.0%	10.5%
Large Company	22.6%	24.6%
Agribusiness	3.1%	1.5%
Public Administration	4.3%	6.9%

Bachelor's degree or higher

	Beneficiary	Non-beneficiary
Microenterprise	17.3%	16.0%
Small Company	21.9%	21.5%
Medium-size Company	9.3%	10.5%
Large Company	23.2%	29.9%
Agribusiness	1.2%	0.8%
Public Administration	27.1%	21.3%

Microenterprise   Small Company   Medium-size Company   Large Company   Agribusiness   Public Administration

Highlights

Note: The activity of domestic services was not presented in the visualization because it was residual: 358 dependent beneficiaries from 7 to 16 years old and 548 non-beneficiaries of the same age group were in this activity.

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

Increase in schooling generates, mainly, the relative increase of workers in public administration. What are the main occupations of workers with Higher Education in this activity?

imds
instituto mobilidade e
desenvolvimento social

Company size – Distribution of workers in Public Administration with bachelor degrees or more: 10 main occupations

Considering dependent beneficiaries aged 7 to 16 years of the PBF in 2005 and non-beneficiaries of the PBF between 2005 and 2019 who were of the same age group in 2005.

#	Beneficiary PBF 2005			Non-beneficiary PBF		
	Population	%	Occupation – CBO 2002 Family	Population	%	Occupation – CBO 2002 Family
1º	9.778	15%	Elementary School teachers (1st to 4th grades) holding a college degree	61.311	13%	Agents, assistants and administrative assistants
2º	7.453	11%	Agents, assistants and administrative assistants	47.857	10%	Public service managers
3º	6.804	10%	Elementary or JHS teachers holding a high school diploma	38.993	8%	Elementary or JHS teacher holding a high school diploma
4º	6.315	10%	Public service managers	38.832	8%	Elementary School teachers (1st to 4th grades) holding a college degree
5º	3.655	6%	High School teachers	21.625	5%	Medical practicioners
6º	2.350	4%	Pre-school teachers holding a high school diploma	21.573	5%	High School teachers
7º	1.963	3%	Pre-school teachers holding a college degree	15.649	3%	Corporals and soldiers of the military police
8º	1.871	3%	Elementary or JHS teachers (4th to 8th grades) holding a college degree	14.977	3%	Nurses and the like
9º	1.799	3%	Corporals and soldiers of the military police	12.066	3%	Pre-school teachers holding a high school diploma
10º	1.772	3%	Nurses or similar	11.520	2%	Military Officers

Appendix

Initial data base (2005)

- The Payroll contains information on the beneficiaries of the *Bolsa Família* Program;

- The beneficiaries are divided into holders, *i.e.*, those responsible for the family and for carrying the debit card in which the benefit is deposited, and into dependents, the family members who claim eligibility for the program;

- The records of the Payroll contained only the date of birth, the identification of the individual, the municipality and the amounts received in 2005. Over the years, new characteristics have been added, such as the sex of each beneficiary, in 2006;

- The **universe of interest**, **dependent beneficiaries aged 7 to 16 years in 2005**, encompasses 11,628,308 people.

Return

Baseline for access to the formal labor market (2015 to 2019)

- The RAIS is an instrument for collecting information related to formal employment in Brazil;

- The declaration of RAIS is the obligation of employers;

- For the study proposed herein, between 2015 and 2019, the presence of those who were dependent beneficiaries aged 7 to 16 years of the *Bolsa Família* Program in 2005 was analyzed year by year;

- Each year of the period (2015 to 2019) 2 groups were selected in RAIS to evaluate the conditions of access to the formal labor market:

  - Universe of interest: poor children in 2005 - dependent beneficiaries of 7 to 16 years of the PBF in 2005 found in RAIS between 2015 and 2019. Access was not considered when the employment salary was zero;

  - Universe of comparison: non-poor children in 2005 - non-beneficiaries of the PBF between 2005 and 2019 with the same age group as the universe of interest. Access was not considered when the employment salary was zero.

Return

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

Reference basis for the income distribution of all jobs (2015 to 2019)

- The PNADC is a survey that aims to follow up information necessary for the study of socioeconomic development in Brazil;

- For the study proposed here, between 2015 and 2019, the distribution of income from all jobs by Federative Unit and year in fifths of distribution was analyzed;

- From the increasing ordering of income from all jobs, workers with income from all jobs were distributed into 5 equal groups, generating groups with their respective minimum and maximum income values;

- These minimum and maximum limits of each group were divided by the value of the minimum wage in force each year;

- Finally, respecting the minimum and maximum limits of each fifth of income of all jobs in each year, RAIS workers were classified in the income distribution fifths of all jobs defined from the PNADC.

Return

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023

imds
instituto mobilidade e
desenvolvimento social

Universe of interest

Dependent beneficiaries aged 7 to 16 years of the PBF in 2005

This study uses longitudinal panel data with the objective of studying the **dynamics of poverty and social mobility in Brazil**, especially throughout the lifecycle of the individual. Those who benefited from the PBF in 2005 are used as a representation of **poor children**, considering that PBF was the main program for the eradication of poverty in Brazil at the time.

It is worth mentioning that this is a measure that underestimates the number of children in poverty, because in 2005 the PBF had a waiting list for receiving the benefit;

- The RAIS databases were analyzed year by year, between 2015 and 2019, to identify whether the poor children in 2005, found on the PBF Payroll, were able to access the formal labor market captured by RAIS;

- In addition, this study analyzed the conditions of access and how former beneficiaries of PBF approach or differ from children of the same age group who were not poor, that is, who were not beneficiaries of the PBF between 2005 and 2019;

- For the analysis of the conditions of access, the highest salary job in the last year in which the beneficiary was found in the RAIS was considered. If the individual had more than one tie that year with the same income, a random tiebreaker was used.

Information
from
the study

Universe of Comparison (1/2)

Non-beneficiaries of the PBF between 2005 and 2019 of the same age group as that of the universe of interest

We compare the conditions of formal employment of beneficiaries of the PBF in 2005 and **non-poor children** using RAIS.

The comparison universe, non-poor children, was defined as the group people in the same age group as the beneficiaries of the PBF in 2005 who were not beneficiaries of the PBF between 2005 and 2019;

- In both groups, for comparison purposes, the last record found in RAIS in the period from 2015 to 2019 was adopted;

- The universes of comparison and interest were identified in the RAIS analysis in each year from 2015 to 2019.

It is worth mentioning that this is a very heterogeneous group and may be composed of children with characteristics similar to those of the universe of interest, since the PBF had a waiting list in the beginning – poor children who were not covered by the Program. It encompasses all other children who were 7 to 16 years old in 2005, were not beneficiaries of the PBF between 2005 and 2019, and were found in RAIS between 2015 and 2019, and may even be among wealthier families;

Universe of Comparison (2/2)

- The highest-paying job in the last year in which the non-beneficiary was found in RAIS between 2015 and 2019 was considered. If the individual had more than one tie that year earning the same income, a random tiebreaker was used.

- The control variables used to ensure similar characteristics between the universe of interest (beneficiaries dependent on the PBF in 2005) and the universe of comparison (non-beneficiaries of the PBF between 2005 and 2019) are:

  - Year of last job
  - Age group
  - Education level
  - Sex
  - Skin color or race

Information
from the study

Conditions of access to the formal labor market: an analysis of
the 2005 beneficiaries of the PBF | May 2023

Methodology

- To allow comparison between the universe of interest and the universe of comparison, we defined the age groups of the universe of comparison according to each person's age in the year 2005:

- The following table shows an example of how the age group is determined:

Age group in RAIS 2015	Age group in 2005	
10-to-16-year-olds	0-to-6-year-olds	
17-to-19-year-olds	7-to-9-year-olds	**Universe of interest evaluated in this presentation**
20-to-26-year-olds	10-to-16-year-olds	
27-to-39-year-olds	17-to-29-year-olds	
40-to-49-year-olds	30-to-39-year-olds	
50-to-59-year-olds	40-to-49-year-olds	

- Therefore, in **2016** the **age group of the universe of interest** was **18-to-27-year-olds**; In **2017** it was **19-to-28**; In **2018** it was **20-to-29**; and in **2019** it was **21-to-30-year-olds**.

Information
from the study

Methodology

- The regionalized poverty lines proposed by Ipea, IBGE and ECLAC (1997) originally presented values for rural and urban areas of the Great Regions or States and for Metropolitan Areas.

- For the municipal application of the regionalized poverty lines, there was an update to 2019 values and: (i) for the municipalities identified by IBGE as belonging to Metropolitan Regions (MRs) and Integrated Development Regions (IDERs), we applied the poverty lines of the metropolitan area of the corresponding state; (ii) for the other municipalities, we applied weighted lines* based on the rural and urban poverty lines and the proportion of the rural and urban population of the corresponding states (PNADC 2019).

- Altogether there are 36 lines ranging from RS268.52 in Espírito Santo, to R$434.09 in the Metropolitan Area of Rio Grande do Sul.

- *The poverty line of a municipality not belonging to a MR or an IDER is given by the formula:

$$\frac{\text{(Rural population of state where the municipality is located x rural poverty line of the same state)} + \text{(Urban population of the state where the municipality is located x urban poverty line of the same state)}}{\text{Rural population} + \text{Urban population of the state where the municipality is located}}$$

IBGE Code	Territory	Poverty line
11	Rondônia	R$ 347.23
12	Acre	R$ 345.47
13	Amazonas	R$ 349.71
14	Roraima	R$ 350.48
15	Pará	R$ 345.07
15	Pará – Metropolitan Area	R$ 347.27
16	Amapá	R$ 352.34
17	Tocantins	R$ 349.70
21	Maranhão	R$ 338.57
22	Piauí	R$ 337.56
23	Ceará	R$ 341.44
23	Ceará – Metropolitan Area	R$ 309.07
24	Rio Grande do Norte	R$ 342.93
25	Paraíba	R$ 342.40
26	Pernambuco	R$ 344.29
26	Pernambuco - Área Metropolitana	R$ 406.31
27	Alagoas	R$ 341.48
28	Sergipe	R$ 342.41
29	Bahia	R$ 340.07
29	Bahia – Metropolitan Area	R$ 382.00
31	Minas Gerais	R$ 268.98
31	Minas Gerais – Metropolitan Area	R$ 305.60
32	Espírito Santo	R$ 268.52
33	Rio de Janeiro	R$ 329.08
33	Rio de Janeiro – Metropolitan Area	R$ 388.95
35	São Paulo	R$ 344.68
35	São Paulo – Metropolitan Area	R$ 392.42
41	Paraná	R$ 337.03
41	Paraná – Metropolitan Area	R$ 357.69
42	Santa Catarina	R$ 336.46
43	Rio Grande do Sul	R$ 336.71
43	Rio Grande do Sul – Metropolitan Area	R$ 434.09
50	Mato Grosso do Sul	R$ 288.18
51	Mato Grosso	R$ 286.29
52	Goiás	R$ 288.76
53	Federal District – Metropolitan Area	R$ 336.86

Information
from the study

Methodology

The job quality groups were measured based on the following steps:

1. For each year, from 2015 to 2019, we took all RAIS employees and the information of the employment relationship with the highest salary;

2. We pooled the data from 2015 to 2019;

3. Based on the pooled data, for each pair of economic activity sector (CNAE 2.0 2 digits) and occupation (CBO 2002 4 digits), we computed two variables related to the quality of the "position":

   a. Average remuneration in quantities of minimum wages

   b. Fraction of people with higher education

   c. We normalized the measurements in 3.a and 3.b by subtracting the mean and dividing by the standard deviation, generating a score for each of these variables;

4. We took the mean of the two variables (adding and dividing by 2);

5. Finally, we ordered the means found in the last step and divided them into 10 groups represented by the deciles of the distribution.

Results

Information
from the study

Conditions of access to the formal labor market: an analysis of
the 2005 beneficiaries of the PBF | May 2023

Methodology

- To define the size of the company, the methodology presented in the Yearbook of work in micro and small enterprises: 2013 of SEBRAE - Brazilian Service of Support to Micro and Small Enterprises, as presented below:

Size	Sectors	
	Industry (1)	Trade and Services (2)
Microenterprise	Up to 19 people occupied	Up to 9 people occupied
Small company	from 20 to 99 people occupied	from 10 to 49 people occupied
Medium-size company	from 100 to 499 people occupied	from 50 to 99 people occupied
Large company	500 or more people occupied	100 or more people occupied

(1) The same size boundaries were used for the construction sector

(2) The service sector does not include public administration or domestic service

*"Divisions related to agribusiness were excluded due to the fact that this sector was found to be sub-represented in Rais. A significant part of rural producers are not required to register their business as a legal entity, being it enough to register their activity within the purvue of the State Secretariats of Treasury." (SEBRAE, 2006, p. 13).

Information from the study

Conditions of access to the formal labor market: an analysis of the 2005 beneficiaries of the PBF | May 2023