Brazil 2014

1   Survey Description

Survey: Pesquisa Nacional por Amostra de Domicilios Contínua Anual (PNAD) carried out by the Brazilian Institute of Geography and Statistics (IBGE), for the year 2014.

Link to the document: https://metadados.ibge.gov.br/consulta/estatisticos/operacoes-estatisticas/B5

Sample: The survey was conducted from 28th of September 2013 to 27th September 2014. The PNAD collects information from 7 socio-economic regions (151,291 households and 362,627 individuals) and is nationally representative. The sample considered is restricted to adult individuals aged 29 to 70 with information about outcome and circumstances , 260,179 individuals in the total sample and 41,031 individuals in the analysis sample. Section 3 of this document describes the prevalence and pattern of missing data.

Weights: The weights of the sample use ratio estimators, which independent variable is the projection of the resident population of each Federation Unit, according to the type of area (metropolitan and non-metropolitan regions where the survey was executed) (*weights*).

Outcome: The outcome variables are annual equivalized household disposable total (*eq_iinc*) income in dollars PPP 2017.[1]

Circumstances:

- Sex (female, male)
- Race 'Ethnicity' (indigenous, afro-descendant and others, described in Table 1)
- Region of birth 'Birthplace' (27 states and foreign, described in Table 1)
- Father's edu. (years of education (maximum 15), described in Table 2)
- Mother's edu. (years of education (maximum 15), described in Table 2)
- Father's occ. (11 categories, 10 from 1-Digit ISCO + one category including unemployed, described in Table 3).
- Mother's occ. (11 categories, 10 from 1-Digit ISCO + one category including unemployed, described in Table 3).

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[1]Income variable was equivalized using the square root scale.

2 Descriptive Statistics

Table 1: Respondant's socio-demographics - 2014

	Analisis sample	Total sample
	(N=41,031)	(N=260,179)
Gender		
0 Female	20,858 (50.8%)	136,723 (52.5%)
1 Male	20,173 (49.2%)	123,456 (47.5%)
Ethnicity		
1 White	19,650 (47.9%)	112,267 (43.2%)
2 Mix-race	17,761 (43.3%)	120,274 (46.2%)
3 Indigenous	139 (0.3%)	1,173 (0.5%)
4 Afro-descendant	3,293 (8.0%)	25,323 (9.7%)
5 Other	188 (0.5%)	1,142 (0.4%)
Region of birth		
11 Rondônia	426 (1.0%)	2,325 (0.9%)
12 Acre	360 (0.9%)	2,584 (1.0%)
13 Amazonas	1,018 (2.5%)	7,208 (2.8%)
14 Roraima	123 (0.3%)	697 (0.3%)
15 Pará	1,917 (4.7%)	14,300 (5.5%)
16 Amapá	205 (0.5%)	1,258 (0.5%)
17 Tocantins	407 (1.0%)	3,116 (1.2%)
21 Maranhão	1,257 (3.1%)	9,341 (3.6%)
22 Piauí	922 (2.2%)	5,555 (2.1%)
23 Ceará	2,035 (5.0%)	15,402 (5.9%)
24 Rio Grande do Norte	635 (1.5%)	4,034 (1.6%)
25 Paraíba	964 (2.3%)	6,103 (2.3%)
26 Pernambuco	2,301 (5.6%)	17,376 (6.7%)
27 Alagoas	552 (1.3%)	4,855 (1.9%)
28 Sergipe	620 (1.5%)	4,238 (1.6%)
29 Bahia	3,323 (8.1%)	23,001 (8.8%)
31 Minas Gerais	4,799 (11.7%)	28,651 (11.0%)
32 Espirito Santo	827 (2.0%)	4,767 (1.8%)
33 Rio de Janeiro	2,645 (6.4%)	17,085 (6.6%)
35 São Paulo	4,774 (11.6%)	25,660 (9.9%)
41 Paraná	2,797 (6.8%)	15,346 (5.9%)
42 Santa Catarina	1,308 (3.2%)	6,963 (2.7%)
43 Rio Grande do Sul	3,693 (9.0%)	20,933 (8.0%)
50 Mato Grosso do Sul	548 (1.3%)	3,378 (1.3%)
51 Mato Grosso	506 (1.2%)	3,401 (1.3%)
52 Goiás	1,342 (3.3%)	8,479 (3.3%)
53 Distrito Federal	600 (1.5%)	3,080 (1.2%)
98 Other country	127 (0.3%)	1,043 (0.4%)

Table 2: Parental education - 2014

	N	Mean	SD	Median	Min	Max	Missing
Analisis sample - Mother's edu	41,031	5.353	4.968	4	0	15	0
Analisis sample - Father's edu	41,031	5.037	4.828	4	0	15	0
Total sample - Mother's edu	260,179	5.489	4.921	4	0	15	179,455

	N	Mean	SD	Median	Min	Max	Missing
Total sample - Father's edu	260,179	5.224	4.863	4	0	15	199,421

Table 3: Parental occupation - 2014

	Analisis sample	Total sample
	(N=41,031)	(N=260,179)
Mother's occupation (ISCO)		
0 Armed forces	14 (0.0%)	24 (0.0%)
1 Managers	974 (2.4%)	1,425 (0.5%)
2 Professionals	2,238 (5.5%)	3,486 (1.3%)
3 Technicians and Associate professionals	1,683 (4.1%)	2,642 (1.0%)
4 Clerks	1,449 (3.5%)	2,370 (0.9%)
5 Services and Sales workers	9,867 (24.0%)	19,600 (7.5%)
6 Agricultural, Forestry and Fishery workers	7,252 (17.7%)	11,361 (4.4%)
7 Craft and trade workers	1,795 (4.4%)	3,131 (1.2%)
8 Plant and machine opperators and assemblers	542 (1.3%)	979 (0.4%)
9 Elementary occupations	22 (0.1%)	42 (0.0%)
10 Unemployed	15,195 (37.0%)	22,950 (8.8%)
Missing	0 (0%)	192,169 (73.9%)
Father's occupation (ISCO)		
0 Armed forces	616 (1.5%)	860 (0.3%)
1 Managers	2,441 (5.9%)	3,336 (1.3%)
2 Professionals	1,589 (3.9%)	2,174 (0.8%)
3 Technicians and Associate professionals	1,789 (4.4%)	2,539 (1.0%)
4 Clerks	1,392 (3.4%)	1,917 (0.7%)
5 Services and Sales workers	5,820 (14.2%)	8,902 (3.4%)
6 Agricultural, Forestry and Fishery workers	13,489 (32.9%)	20,356 (7.8%)
7 Craft and trade workers	7,485 (18.2%)	11,588 (4.5%)
8 Plant and machine opperators and assemblers	4,027 (9.8%)	5,983 (2.3%)
9 Elementary occupations	1,148 (2.8%)	1,828 (0.7%)
10 Unemployed	1,235 (3.0%)	2,001 (0.8%)
Missing	0 (0%)	198,695 (76.4%)

Table 4: Respondant's income - 2014

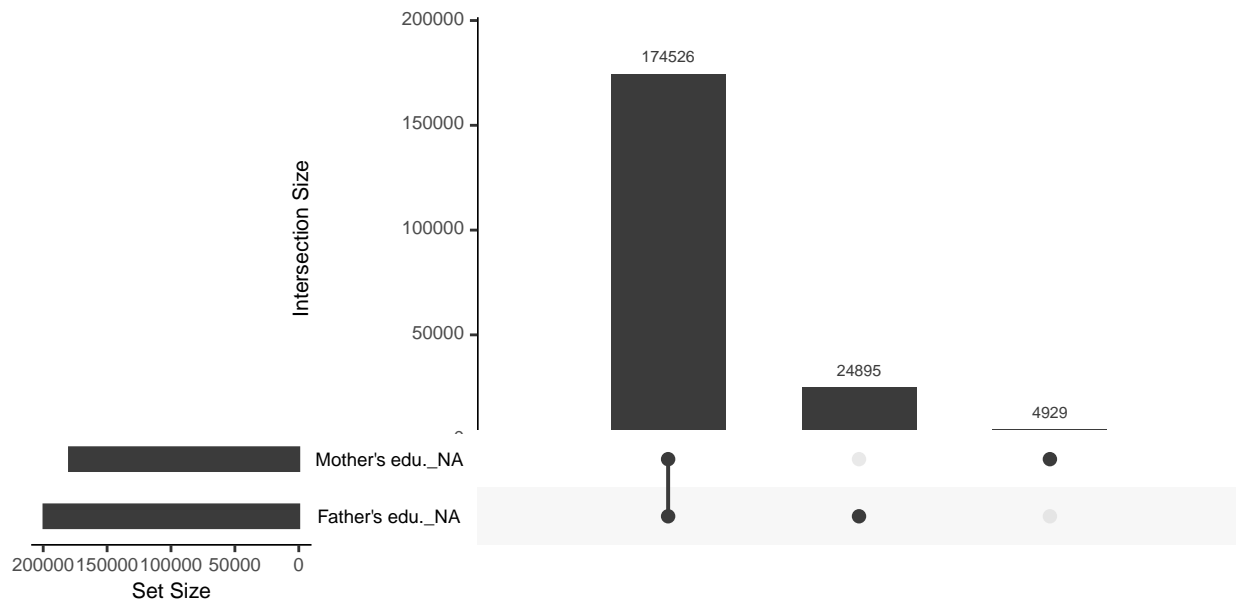|	N	Mean	SD	Median	Min	Max	Missing
Analisis sample	41,031	12,854	17,725	8,229	3.879	593,507	0
Total sample	260,179	10,931	14,801	7,198	3.879	1,816,937	0

3 Missing data analysis

3.1 Missing patterns

Figure 1: Missing patterns: *Left:* Marginal distribution of missing observations per variable. *Right:* Combination of missingness across cases

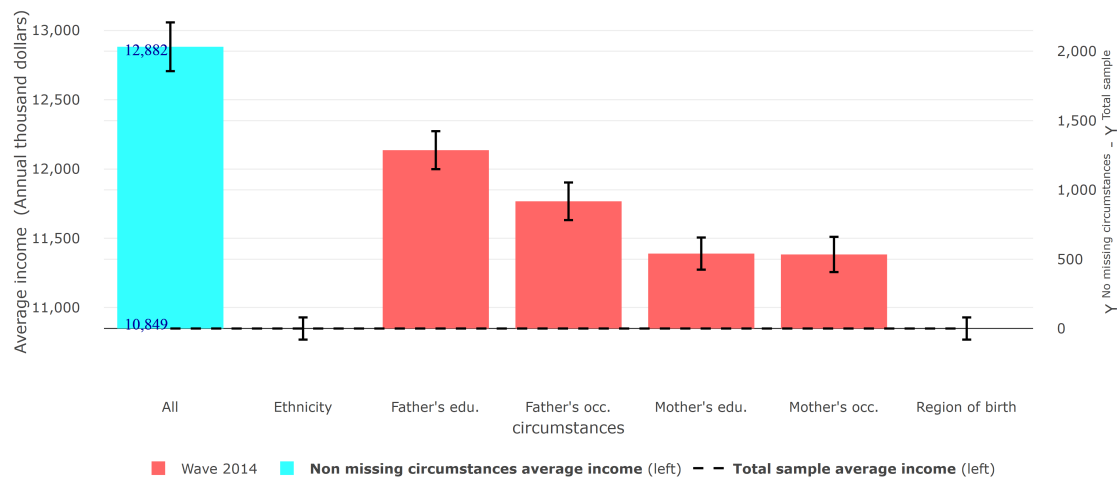## 3.2 Differences in expected total equivalized household income between samples

Figure 2: Differences in expected equivalized household income between the sample with non-missing circumstances and the total sample

3.3 Gini coefficient

Table 5: Gini coefficient in analysis sample and total sample

Wave	Sample	Gini	Lower bound	Upper bound	Average income
Wave 2014	Analysis sample	0.486	0.486	0.496	12,882
Wave 2014	Total sample	0.474	0.477	0.481	10,849

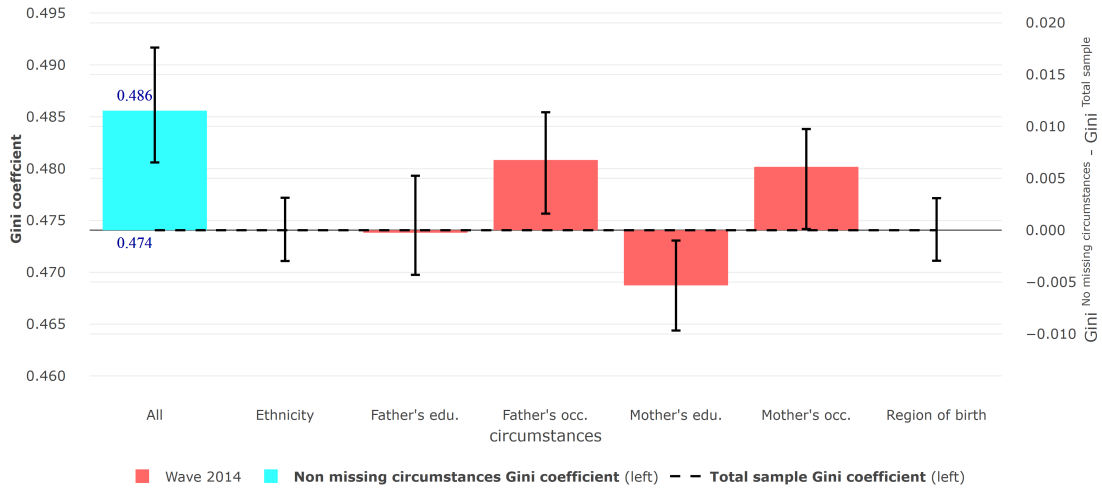## 3.4 Differences in Gini coefficient between samples

Figure 3: Differences in Gini coefficient between the sample with non-missing circumstances and the total sample