Gestão & Regionalidade

Received: 28/09/2022
Accepted: 12/03/2023

Which brazilian capitals promote greater social welfare?

Quais capitais brasileiras promovem maior bem-estar social?

Luciano Henrique Fialho Botelho[1i], Orcid: https://orcid.org/0000-0002-9225-1266; **Thiago de Melo Teixeira da Costa**[2ii], Orcid: https://orcid.org/0000-0002-0521-3799

1. Universidade Federal de Viçosa – Viçosa- Minas Gerais – Brasil. E-mail: luciano.botelho@hotmail.com
2. Universidade Federal de Viçosa – Viçosa- Minas Gerais – Brasil. E-mail: thiagocosta@ufv.br

Abstract
Observing the heterogeneities of the capitals of Brazilian states and access to social welfare policies (health, education, assistance and social security), this study sought to evaluate and classify income equality, development and access to social policies, in addition to the correlation between such aspects in national capitals. Theoretically, it addresses the welfare state, public policies, development and inequality. This is a quantitative study that uses bibliographic, descriptive, geostatistical and *Pearson* correlation coefficients for the year 2016. The results show that there are few capitals that can be cited as promoters of social welfare, pointing out Florianópolis and Curitiba. Finally, the associations between development and welfare and social assistance policies and income deconcentration and access to public education are highlighted.
Keywords: development. inequality. social policies.

Resumo
Observando as heterogeneidades das capitais dos estados brasileiros e o acesso às políticas de bem-estar social (saúde, educação, assistência e previdência social), este estudo procurou avaliar e classificar igualdade de renda, desenvolvimento e acesso às políticas sociais, além da correlação entre tais aspectos nas capitais nacionais. Teoricamente, aborda-se Estado de bem-estar social, políticas públicas, desenvolvimento e desigualdade. Este é um estudo quantitativo que se utiliza de análises bibliográficas, descritivas, geoestatísticas e coeficientes de correlação de *Pearson* para o ano de 2016. Os resultados expõem que são poucas as capitais que podem ser citadas como promotoras de bem-estar social, apontando Florianópolis e Curitiba. Por fim, ressaltam-se as associações entre desenvolvimento e políticas de previdência e assistência social e desconcentração de renda e acesso à educação pública.
Palavras-chave: desenvolvimento; desigualdade; políticas sociais.

Citation: Botelho, L.H.F., & Costa, T. M. T. (2025). Which brazilian capitals promote greater social welfare? *Gestão & Regionalidade*, v. 41, e20258766. https//doi.org/10.13037/gr.vol41.e20258766

1 Introduction

Brazil, since its colonization, is marked by serious inequalities, whether of income, wealth or access to collective well-being (Barros; Henriques; Mendonça, 2001; Neri, 2019). In this scope, however, some historical advances were noticed, especially when observing the

establishment of the Federal Constitution of 1988 (CF/88) that strengthened the desire for development, with the proposition of new social policies.

Social welfare state scholars such as Esping-Andersen (2002) and Hemerijck (2017), as well as social policy researchers such as Amartya Sen (1999) and Piketty (2014), continue to emphasize the ability of investment in social policies to generate opportunities and remove deprivations. Thus, there are broad debates about the relevance of public investments in health, education, assistance and social security for these purposes (Magalhães, Burlandy, & Senna, 2007; Petranski & Ternoski, 2021; Reiter & Lezama, 2013).

Despite the progress exposed by CF/88, in contemporary times Neri (2019) presents that Brazil is experiencing the largest period of escalation of income inequality in its history, since between 2014 and 2019 the income of the poorest 50% fell by approximately 17% while that of the richest 1% expanded by about 10%. Unemployment and other economic difficulties are considered by the author as causes of such phenomenon.

The growing contemporary inequality, however, represents a change from what had been occurring in Brazil, since, as Costa (2019) approaches, from 2002 to 2013, the concentration of income in Brazil, earned by the Gini Index, decreased from 0.59 to 0.53, largely due to the social policies implemented. The recent deterioration of the exposed indicator approaches, in temporal terms, the period of expansion in public investment cuts in Brazil, as verified in the studies by Rossi, Dweck and Arante (2018) and Carvalho (2020).

In the midst of the discussions presented, there is an opportunity to analyze relations between social policies, development and income inequality in locations that have peculiar characteristics, such as the capitals of the states of Brazil. At this point, the study by Neri (2019) points out that amid the high income reductions that have afflicted Brazil since 2014, the average labor income in the national capitals has remained. Such localities, moreover, may have greater capacity to implement social policies when constituting the economic centers of the states, holding greater financial availability.

On the other hand, there are high heterogeneities between the state capitals, different economic characteristics, various development indicators, as pointed out by the FIRJAN Index of Municipal Development (IFDM), in addition to population concentration, which can corroborate with high income inequality. For all this, it is understood that the capitals of the states of Brazil are rich sources for analysis on the effectiveness of access to public policies and consummation of better levels of development and income equality, consequent social welfare.

It is intended, in view of the above, to evaluate the levels of equality of income, development and access to social policies in the capitals of the Brazilian states, based on the argument of Sen (1999), that the generation of equality and development is an objective of public administration, therefore its evaluation is necessary. Thus, the objective is to evaluate and compare development indicators, income equality and access to public welfare policies in the 26 national capitals, with data from 2016. In addition, we seek to examine the correlation of development levels and income equality with access to public welfare and social assistance policies and health and education.

The social welfare in this study, based on Bobbio, Matteucci and Parquino (1995), is analyzed by the possibility of access to public policies of education, health, social assistance and social security. In addition, Amartya Sen (1999) includes economic development and social equality as components of the measurement of well-being, and these variables are therefore also the focus of this study.

Based on descriptive, exploratory and correlative quantitative analyses, the results preliminarily indicate that higher economic levels in certain capitals do not represent greater

delivery of social welfare, as well as the relationship of welfare and social security policies with the development and deconcentration of income associated with public education.

Subsequently, theoretical and bibliographic debates considered relevant for the construction of this study and achievement of the proposed objectives are presented. This article is still composed of the methodological procedures, results and discussions and final considerations.

2. Theoretical Background

2.1 Welfare state and public policies

This study analyzes social welfare in Brazilian capitals, which makes it essential to understand the social welfare state, which, according to Esping-Andersen (1990), represents a state assistance system for society, seeking to promote human dignity. In Mattos's view (2017, p.48), this is seen as a "political and economic organization in which the State has a central role in economic organization aimed at promoting social progress and creating safety nets for citizens 'from cradle to grave'".

In the so-called 'new welfare state' exposed by Esping-Andersen *et al* (2002) and that emerged after the crisis of the traditional welfare state, exposed by Polivka and Luo (2015) and Matias-Pereira (2010), the social investment paradigm is argued. The social application starts to be seen positively in the consolidation of public policies of human protection that promote economic benefit (Hemerijck, 2017). Corroborating, Draibe (2007, p.30-31) addresses that "social policy is a condition of economic development", while "it transforms citizens from mere passive recipients of social benefits into independent, active people, co-producers of their own social protection".

In this relationship between economic development and social protection, Souza (2006) distinguishes between social policies and economic policies, both being segments of public policies. According to this author, social policies focus on the results of public policies, not on the process. Economic policies, on the other hand, have intervention measures in the economy, an intermediate focus to the final result.

For Souza (2006), as a field of knowledge, public policy seeks to "put the government into action" in addition to analyzing and modifying such action when necessary. Corroborating, Rua (2009) expresses in public policy the "*outputs*" of political activities that involve strategic decisions and actions with a view to allocating public resources to solve public problems.

2.2 Development and inequality

The welfare state seeks, through the implementation of public policies, to generate development and mitigate inequalities. Development can be understood as the consequence of economic growth plus human progress (Lebret, 1959; Sampaio & Vital, 2015). In the approach of Moreira and Martins (2017), development represents economic, political, cultural and social valuations that promote well-being. Prata (1994), in this sense, presents that economic growth without social justice results in social inequalities.

The belief that growth can lead nations to social progress, therefore, in the view of Cristaldo, Senna and Matos (2018), is nothing more than a myth of contemporary capitalism that aims at the accumulation of capital. "Development only exists when the population as a whole is benefited" (Furtado, 2002 p. 78). With this understanding, development will only be possible based on equal opportunities (Vega et al., 2012).

Kerstenetzky (2000), when discussing the works of Amartya Sen, portrays the effect of inequality on the deprivation of human actions and its relationship with poverty. Limitation due to social disadvantage causes people to lose their willingness to seek better situations, due to lack of hope and fear of frustration. At this point, relative poverty, that determined by socioeconomic inequality and comparisons in social and cultural issues, has great relevance (Sen, 1990). It is also important to understand that inequality is not unique, on the contrary, it has several aspects: resources, rights, knowledge and capacities, which must be evaluated and combated (Sen, 1990).

Among the inequalities, historically in Brazil, according to Furtado (1983), income inequality is the biggest cause of economic stagnation, with the deconcentration of income for national development being preponderant. According to Birdsall, Ross and Sabot (1995), income inequality and educational difficulties negatively affect the development of Latin America.

The best way to remove major inequalities and promote development is through the promotion of social policies. Piketty (2014) points out, in this way, that income inequality will reduce from investment in education, generating training and qualification, with an increase in wages. According to the aforementioned author, the qualification of the worker is related to their skills and marginal productivity, in addition their skills are demanded by society.

2.3 Access to public policies, development and inequality

This section presents the relations of the proposition of public policies of interest in this study (public health, public education, social security and social assistance) with the generation of development and equality.

Studying access to public health, Palma (2019) discusses how the reduction of state investment in Peru in mental health policies that have affected social well-being. Johar *et al* (2019) reports high inequality in access to health in Indonesia, associated with geographical regions and the economic conditions of families. On the other hand, the creation of universal health insurance is positively observed.

Analyzing education, Cardoso and Fonseca (2019) debate how fundamental school is in the role of building and transforming a society, making individuals active and conscious in their social performance. Thus, these authors argue against selectivity in education and in favor of strengthening educational practices by the State.

In the scope of higher education, Espinoza, González-Fiegehen and Granda (2019) made a comparison between Chile and Ecuador regarding access to higher education, the results showed differences in the systems of both countries. However, in the face of complex scenarios, it was noted that Chile and Ecuador are moving towards the construction of higher education systems with greater state participation, in search of social justice.

Regarding social assistance, Ribeiro and Miranda (2019) address the usefulness of the Social Assistance Reference Centers (CRAs) as facilitators of access for low-income families to public policies and services, which results in the alleviation of social vulnerability in Brazil. Resende and Oliveira (2008) found that investment in social assistance, based on income transfer policies, impacted the generation of social welfare and economic expansion, given the increase in the consumption of benefited families. In addition, another benefit observed was the reduction of poverty and inequality in the short term, and the possibility of breaking the cycle of poverty in the long term.

In the context of social security in Brazil, some studies, cases of Reis, Silveira and Braga (2013) and Silva *et al* (2013), point out this public policy as favorable to reducing social

vulnerabilities and encouraging consumption, by making resources available, corroborating with socioeconomic development.

Public policies, inequality and development are addressed by Reiter and Lezama (2013), from a comparative study between Brazil and Colombia from an economic perspective, it is evaluated that the cost of social exclusion is higher than the expenditure on social policies. After analyzing educational policies, the authors conclude that investment in public education results in long-term development, given the qualification in the labor market. In addition, investments in affirmative action policies and conditional transfers of resources reduce social inequalities. Corroborating, Magalhães, Burlandy and Senna (2007) emphasize the need to institutionalize social agendas increasingly capable of mitigating inequalities and poverty, through the implementation of public policies.

The study by Ali (2007), analyzing Asian countries, presents that the high economic growth that occurred in these countries was relevant in the decline of poverty. However, there was an increase in social inequalities, resulting from restrictions on public services. At this point, inclusive growth strategies are defended, with opportunity creation, social protection and safety net, through public policies.

The situation addressed of growth that reduces poverty and increases inequality was also debated by Hills *et al* (2019) when highlighting that growth generates employment and income, although it increases the inequality of the middle class in relation to the upper classes. The author argues, however, that both inequality and poverty are violations of human dignity and a barrier to personal capacities.

Analyzing Brazil, Silva (2010) discusses the reduction of poverty and inequality based on the proposition of social policies by CF/88 and positive results already in the following years, in the face of budgetary expansion in such activities. Costa and Gatner (2016) evaluated variations in income inequalities associated with the allocative fiscal policy of the Brazilian State. In general, the authors found reductions in income inequalities, as measured by the Gini and Theil Index.

Petranski and Ternoski (2021), finally, studying municipalities in Paraná, point out the effects of the Unified Health System (SUS), the Bolsa Família Program (PBF) and the Continuous Provision Benefit (BPC) on municipal development indicators, meeting the assumptions of this study.

3 Methodological Procedures

This study is identified by the quantitative research approach and relies on the use of descriptive and exploratory techniques.

3.1 Data Collection and Description of Variables

The variables presented in Table 1, arranged together with their functions and origins, were used. It is noteworthy that all variables were collected for 2016, the last with information on the policies and indicators available for analysis at the time of construction of this study. Therefore, this is a cross-sectional study with datafrom a single year and observations on the 26 capitals of the Brazilian states.

Table 1 - Variables, Functions and Origins

Variables	Role	Origins
FIRJAN Index of Municipal Development (IFDM): developed with variables of Employment, Income, Education and Health.	Used as a proxy for socioeconomic development analysis.	*Web* page of the Federation of Industries of the State of Rio de Janeiro (FIRJAN).
Estimated population, gross domestic product per capita (GDPPercapta), hospitalization for diarrhea, morbidity, infant mortality and enrollment rates, teachers and schools.	Economic variables and access to health and education.	*Web* portal of the Brazilian Institute of Geography and Statistics (IBGE), IBGE Cities study.
Unemployment rate, average monthly salary, ratio between the income of the richest 10% and the poorest 40%, Gini index, Retirement Income and Family Arrangement Pension	Economic variables, access to social security, as well as indicators of inequality.	*Web* page of the Brazilian Institute of Geography and Statistics (IBGE), Study Synthesis of Social Indicators.
Number of social security and welfare benefits (BPC).	Variables of access to public assistance and social security policies.	Portal na *Web* da Previdência Social, estudo Estatística Municipal da Previdência.
Number of Social Assistance Reference Centers (CRAs) per capital.	Variable of social protection through social assistance	Portal on the *Web* of Applications of the Ministry of Social Development, ITS Census (CRAs tabulations).

Source: Prepared by the authors.

It is reported that all variables were collected based on the theoretical and bibliographic alignment exposed in the previous chapter. It is also indicated that some variables needed to be modified in relation to their original collection presentation, as a way to homogenize the observations, all of which started to have the same meaning and direction, corroborating with the statistical evaluations. Thus, Table 2 shows the transformations carried out.

Table 2 - Modified Variables

Original Variable	Modified Variable
Unemployment rate	Occupancy rate
School enrollment elementary and high school	Per-capture tuition
Number of schools	Rate of schools per thousand inhabitants
Number of teachers	Faculty fee per capita
6 - Infant Mortality Rate (per thousand live births)	Infant non-mortality rate per thousand live births
Hospitalization rate for diarrhea per thousand inhabitants	Non-hospitalization rate due to diarrhea per thousand inhabitants
Morbidity rate per thousand inhabitants	Non-morbidity rate per thousand inhabitants
Income Concentration Gini Index	Índice de Gini de Dispersão de Renda (IGDR)
Ratio between the income of the richest 10% and the poorest 40% – Inequality rate	Ratio between the income of the richest 10% and the poorest 40% – Equality rate
Number of pensions and INSS pensions	Rate of pensions and INSS pensions per capita
Number of INSS assistance benefits	Rate of independence of INSS assistance benefits per capita (BPC independence)
Number of CRAs per capital	Number of CRAs per capital per thousand inhabitants

Source: Prepared by the authors.

Next, the operationalization of the data presented is explained.

3.2 Operationalization of Results

Initially, we opted for the construction of the Exploratory Data Analysis (EDA), in order to understand the behaviors of the variables to later use or adapt them. In addition, *Kolmogorov-*

Smirnov and *Shapiro-Wilk* tests were performed as a way to observe the adherence of the distribution to normality, in which it is expected to accept the Null Hypothesis (H0) that indicates the normality of the variables (Pestana & Gageiro, 2008).

Then, the remaining variables, after excluding those rejected in the normality test, were ranked based on descriptive statistical analyzes, as a way to assess the levels of income equality, development and access to public welfare policies in the capitals of Brazilian states. In addition, the Local Geospatial G Test was carried out in order to verify the autocorrelation of income equality and development data in influence of the location of capitals in states and regions. Spatial autocorrelation, according to Box *et al* (1978), analyzes the dependence of a statistical variable along the chosen locations.

Aiming to examine the relationship between development levels and income equality with access to social welfare policies, finally, *Pearson* 'scorrelation coefficient was correlated, which measures the degree of association between two variables, the IFDM (municipal developmentproxy) and the Gini Income Dispersion Index (IGDR) with a variable of each social policy. It is essential to mention that, given the composition of the IFDM (health, education, income and employment), the correlations between health and education policies with municipal development were not examined as a way to avoid endogeneity.

4 Results And Discussion

Exploratory data analysis.

Table 1 shows similar behaviors for the variables IFDM (development) and Occupancy Rate (work and employment) with relatively small standard deviation and values close to the mean, in addition to kurtosis and asymmetry close to zero. The same can be said for the variable Average Monthly Salary, although there is a higher dispersion of the data. On the other hand, GDP Per Capita is observed with high inequality among the apparently non-normal data and distributions, due to kurtosis and asymmetry.

Table 1 - Exploratory Analysis on all Capitals Data in 2016

Variables	Minimum	Maximum	Medium	Standard deviation	Kurtosis	Asymmetry
IFDM	645	858	769	057	355	.719
Occupancy Rate	83.700	94/400.	88 453	2.892	.123	1-6-37
GDP per capita	19935.320	2485252.000	126618.603	481209.044	5,094	25.966
Average monthly wage	1365.000	4019.000	2433.115	637,193	-702	.063
Per-capture tuition	.150	0.257	204	0275	.240	708
Rate of schools per thousand inhabitants	609	1.063	838	.117	205	347
Faculty fee per capita	.008	.014	.011	.001	030	-1.391
Infant non-mortality rate per thousand live births	82.270	93.910	87.433	2.652	395	.104
Non-hospitalization rate due to diarrhea per thousand inhabitants	97.000	99.900	99.392	613	2 586	8.755
Non-morbidity rate per thousand inhabitants	91.071	99.423	94,308	1.590	1.045	3.811
Índice de Gini de Dispersão de Renda (IGDR)	379	551	474	037	120	988

Variables	Minimum	Maximum	Medium	Standard deviation	Kurtosis	Asymmetry
Ratio between the income of the richest 10% and the poorest 40% – Equality rate	79,300	91.600	87.407	2.756	-975	1,658
Rate of pensions and INSS pensions per capita	.038	215	.113	.0462	373	538
Percentage of Retirement and Pension Income Family Arrangement	6.900	24.500	17.015	5.249	-248	-952
Rate of independence of INSS assistance benefits per capita (BPC independence)	953	.991	973	-0.009	-378	-350
No. of CRAs per Thousand Inhabitants	.004	033	159	0.007	-281	448

Source: Prepared by the authors.

The education variables (Enrollment, Schools and Teachers) followed the same line as the variables IFDM and Occupation Rate, as well as the data of Social Security (Benefits and Income), Social Assistance (Benefits and Numbers of CRAs) and Equal Income (Equality and Income Dispersion Ratio).

In the context of Health, however, the variables Non-Morbidity and Non-hospitalization due to Diarrhea, despite having low data dispersion, have indicators of kurtosis and asymmetry far from zero. Differently, the variable Infant Non Mortality which has kurtosis and asymmetry closer to zero and low dispersion of the data in relation to the mean.

Corroborating, the variables present in Table 1 were examined by the *Kolmogorov-Smirnov* and *Shapiro-Wilktests*, which confirmed the statistical normal distribution of the exposed variables, with the exception of GDP Per Capita, Non-hospitalization for Diarrhea and Non-Morbidity.

4.2 Access to Public Policies, Equal Income and Development

According to Table 2, the capitals were classified by variables of Development, Equality of Income and Work and Employment, after excluding the non-normal variables. The first highlight is the heterogeneity between the capitals regarding all variables. There are cities, such as São Paulo, which has a good position in the IFDM (3rd) and, on the other hand, is only in 22nd place when it comes to the Equal Income Ratio. In addition, Teresina has the second worst Average Monthly Income among the capitals of Brazil, however it occupies the third position in Occupation and the fourth in Development (IFDM), Porto Alegre is in 2nd place in Average Monthly Income and occupies the 2nd worst position in the scope of Income Equality.

Table 2 – Classification: Development, Income, Employment and Equality Variables for Capitals in 2016

Capitals	IFDM	Pos.	Median Income	Pos.	Occupancy Rate	Pos.	Equal Income Ratio	Pos.	IGDR	Pos.
Aracaju – SE	0.719	21	R$2,714.00	8	86.900	18	84.40	23	0.442	24
Belém - PA	0,692	25	R$1,765.00	24	86,200	21	87.10	17	0.460	17
Belo Horizonte - MG	0.822	7	R$2,575.00	9	88,500	12	87.60	13	0.457	18
Boa Vista – RR	0.766	14	R$2,235.00	15	91.400	5	87.60	13	0.467	16
Campo Grande - MS.	0.815	9	R$2,378.00	12	92.900	2	89.90	4	0.502	4

Capitals	IFDM	Pos.	Median Income	Pos.	Occupancy Rate	Pos.	Equal Income Ratio	Pos.	IGDR	Pos.
Cuiabá - MT	0.827	5	R$2,442.00	10	88.600	11	89.00	8	0.501	6
Curitiba-PR	0.851	2	R$3,059.00	6	90,500	8	88.60	11	0.492	8
Florianópolis - SC	0.858	1	R$3,008.00	7	94/400.	1	90.60	3	0.522	3
Fortaleza – CE	0.745	18	R$1,962.00	20	88,500	12	87.20	15	0.448	20
Goiânia - GO.	0.817	8	R$2,436.00	11	91,000	7	89.90	4	0.496	7
JOAO PESSOA-PB	0.775	13	R$2,306.00	13	89,500	9	85.70	21	0.444	23
Macapá-AP	0.645	26	R$2,157.00	17	84 (100%)	24	88.20	12	0.486	11
Maceió — AL	0,692	24	R$1,789.00	23	85, 100%	23	89.30	6	0.502	4
Manaus - AM	0.693	23	US$ 374,81	21	86,300	19	87.20	15	0.470	15
Natal - RN	0.756	16	R$2,248.00	14	85.700	22	83.10	25	0.419	25
Palmas - TO	0.801	10	R$2,203.00	16	88.300	15	91.60	1	0,551	1
Porto Alegre – RS	0.780	12	R$3,476.00	2	91.800	4	84.00	24	0.446	22
Porto Velho – RO	0.698	22	R$1,974.00	19	88.800	10	91.50	2	0.549	2
Recife – PE	0.755	17	R$3,139.00	4	86,300	19	79.30	26	0.379	26
Rio Branco – AC	0.739	19	BRL 1,900.00	22	88,500	12	89.10	7	0.486	11
Rio de Janeiro-RJ	0.789	11	R$3,131.00	5	91,200	6	86.70	18	0.489	10
Salvador – BA	7312	20	R$2,043.00	18	83.700	25	86.00	19	0.447	21
São Luís – MA	0.7625	15	R$1,365.00	26	83.700	25	89.00	8	0.490	9
São Paulo – SP	0,83704	3	R$3,335.00	3	88 - 100	16	85.20	22	0.450	19
Teresina - PI	8275	4	R$1,668.00	25	92,200	3	88.80	10	0.472	13
Vitória – ES	0.8244	6	R$4,019.00	1	87.600	17	86.00	19	0.472	13

Source: Prepared by the authors.

The results presented, an example given by São Paulo and Porto Alegre, are in line with the statements of Ali (2007) and Hills *et al* (2019). These cities may have good indicators of IFDM, average salary and occupation because they present interesting economic situations, however the favorable economic aspect does not represent income equality, the latter being the result of social investments with the creation of opportunities and social protection (Draibe, 2007; Hemerijck, 2017).

Likewise, a critical state of inequality is perceived in Recife (26th position), even with this capital being the fourth best in average income. For Hills *et al* (2019), economic growth can reduce poverty, by generating employment and income, however it is inefficient in reducing inequalities, as it provides distance between the middle class and the upper classes. Therefore, income inequality can result from economic growth without social justice (Furtado, 2002; Prata, 1994).

A positive highlight is verified in Florianópolis, which has the highest development (IFDM) and presents good positions also in the other indicators, such as the 3rd position with regard to the Gini Index for Income Dispersion. Thus, this capital can be considered at an advanced stage of development, and "development only exists when the population as a whole is benefited" (Furtado, 2002 p. 78).

Another situation of relevance is perceived in Palmas, the most egalitarian capital in relation to the distribution of income in Brazil, in both indicators (Gini index and equality ratio), even without having relevance in any of the other variables. The case of Porto Velho also

corroborates the verification that better income equality may not be related to a good level of development, work and employment, with this capital being the second most egalitarian and one of the least developed in Brazil, social investment, especially in educational policies, is preponderant in this sense (Magalhães, Burlandy, & Piketty, 2014; Senna, 2007).

The case of Palmas can be explained by the arguments Ali (2007) and Reiter and Lezama (2013) in which equality originates in access to public policies. To evaluate this aspect, Table 3 shows the positions of the national capitals regarding access to health, education, social security and care policies.

Table 3 – Classification: Variables of Access to Public Welfare Policies for the capitals in 2016

Capitals	Enrolment Fee	P.	Doc. Fee	P.	Esc. Fee	P.	Not Mort. Inf.	P.	CRAs No.	P.	Indep. Assistance Benefits (BPC)	P.	Retir. Pension	P.	Income after Pension	P.
ARACAJU - SE	0.177	23	0.010	20	0.701	24	85-110	22	0.023	5	0.971	14	0.128	9	16.80	15
Belém - PA	0.195	14	0.009	23	0.753	21	85,300	20	0.008	23	0.962	23	0.095	17	18.60	10
Belo Horizonte - MG	0.189	16	0.012	12	0.718	23	90.690	4	0.014	16	0.982	7	0.179	3	18.50	11
Boa Vista – RR	0.254	2	0.013	4	1.063	1	85.780	18	0.021	8	0.969	17	0.063	22	9,10	24
Campo Grande - MS.	0.218	10	0.012	10	0.797	16	89.290	6	0.022	7	0.967	22	0.097	16	18.00	12
Cuiabá - MT	0.227	6	0.013	3	0.958	5	88.560	10	0.024	3	0.970	16	0.083	20	11.10	21
Curitiba-PR	0.194	15	0.013	2	0,769	19	91.340	2	0.024	4	0.984	3	0.151	6	17.40	14
Florianópolis - SC	0.185	20	0.013	8	0.768	20	93.910	1	0.021	9	0.991	1	0.168	5	24.30	2
Fortaleza, State of Ceará, Brazil	0.195	13	0.010	17	0.880	9	88.600	9	0.011	19	0.969	19	0,093	18	20.60	7
Goiânia - GO.	0.181	22	0.010	18	0.848	12	87.460	12	0.010	20	0.979	9	0.109	13	13.80	19
João Pessoa - PB	0.184	21	0.010	16	0.949	6	86.930	15	0.014	14	0.975	12	0.105	14	24.50	1
Macapá-AP	0.237	5	0.013	6	0.883	8	82.270	26	0.013	17	0.968	21	0.038	26	8.80	25
Maceió - AL	0.174	24	0.009	24	0.847	13	85.470	19	0.015	13	0.969	18	0.118	11	23.90	3
Manaus - AM	0,240	3	0.009	25	0.644	25	87.220	13	0.010	21	0.975	13	0.052	25	11.00	22
Natal - RN	0.185	19	0.010	19	0.829	14	86.800	16	0.014	15	0.976	11	0.114	12	23.70	4
Palmas - TO	0.239	4	0.013	5	0.800	15	89.080	7	0.025	2	0.984	4	0,054	24	6.90	26
Porto Alegre - RS	0.172	25	0.011	13	0.851	10	90.980	3	0.015	12	0.981	8	0.215	1	23.10	5
Porto Velho-RO	0.224	8	0.010	22	0.788	17	84.440	24	0.012	18	0.969	20	0.055	23	11.00	22

Capitals	Enrollment Fee	P.	Doc. Fee	P.	Esc. Fee	P.	Not Mort. Inf.	P.	CRAs No.	P.	Indep. Assistance Benefits (BPC)	P.	Retir. Pension	P.	Income after Pension	P.
Recife - PE	0.188	18	0.010	21	1.032	2	88.090	11	0.006	25	0.953	26	0.148	7	17.70	13
Rio Branco – AC	0.257	1	0.010	15	0.894	7	87.150	14	0.019	10	0.955	25	0.075	21	16.00	17
Rio de Janeiro -RJ	0.189	17	0.010	14	0.849	11	86.360	17	0.007	24	0.983	5	0.174	4	23.10	6
Salvador - BA	0.150	26	0.008	26	0.779	18	84,490	23	0.010	22	0.978	10	0.100	15	19.90	9
São Luís - MA	0.224	7	0.012	9	1.009	4	84,190	25	0.018	11	0.956	24	0.087	19	13.50	20
São Paulo - SP	0.209	12	0.012	11	0.747	22	88.680	8	0.004	26	0.983	6	0.148	8	13.90	18
Teresina - PI	0.219	9	0.013	7	1.028	3	85.160	21	0.022	6	0.971	15	0.120	10	16.60	16
Vitoria-ES	0.214	11	0.014	1	0.609	26	89.930	5	0.033	1	0.986	2	0.182	2	20.60	7

Source: Prepared by the authors.

In the view of Moreira and Martins (2017), development is present when there are good economic, political, cultural and social levels, generating social well-being. As this understanding, there is again the good performance of Florianópolis, capital reference also in access to health policies, social assistance and social security. Curitiba approaches Florianópolis when there is a scenario of relevant results in all the indicators analyzed.

This characteristic corroborates the statement of Reiter and Lezama (2013) when analyzing that the cost of exclusion is higher than the expenditure on social policies. Thus, there is high access to welfare policies in the two capitals in better positions in IFDM, Florianópolis and Curitiba. Understanding that is still close to the concept of productive social investment, presented by Esping-Andersen et al. (2002) for the new welfare state.

As opposed to Florianópolis and Curitiba, it is interesting to report the precarious situation of Salvador, which has low positions in all aspects observed in Tables 3 and 4. In the 20th position in the IFDM and 21st place in the Gini Index, Salvador must invest both in economic policies and social policies aimed at development and equality (Moreira & Martins, 2017).

Palmas, in turn, ratifying the statements of Birdsall, Ross and Sabot (1995) and Piketty (2014) with regard to education as a driver of income equality, according to Table 4, has good placements in the variables teacher's rate and enrollment rate, being the most egalitarian capital in Brazil. Good numbers in education are also observed in Boa Vista. Palmas also has emphasis on the variables of access to social assistance, 2ndplace in the number of CRAs. This position may be associated with the relevance of CRAs, and social assistance in general, to reduce inequalities and poverty, with resources available to mitigate the vulnerability of low-income families, as addressed by Resende and Oliveira (2008), Costa (2019) and Ribeiro and Miranda (2019).

In the case of the capitals that were better placed in access to social security, Belo Horizonte, Vitória, Rio de Janeiro and Porto Alegre can be highlighted, cities that have good positions regarding the income variable. As Reis, Silveira and Braga (2013) and Silva *et al*

(2013) approach, social security is an influencer of development, by encouraging consumption through the availability of resources, with the inclusion of individuals in situations of labor difficulty.

It was also noticed that in general the capitals have results closer to those of their neighbors. Therefore, the regions may have interference in the results of the nearest capitals. This statement could be confirmed by the Local G test, using the GEODA *software*, to evaluate the spatial autocorrelation of the IFDM variables and equality ratio.

The capitals that are located in the southern region of Brazil have better IFDM, especially Florianópolis and Curitiba. Thus, the Local G test, with a significance level lower than 0.05, ratified this result. Thus, it is observed that capitals of the Northeast are correlated within the scope of the variable equality ratio, with a significance level lower than 0.05. Studies on social improvements in Brazil, such as that of Costa (2019), point out that northeastern Brazil was one of the regions that presented the most expressive answers about the social benefits of social assistance policies, with emphasis on income transfer programs.

4.3 Public Policies, Equality and Development in Brazilian capitals

Among the variables present in Tables 2 and 3, aiming at the sequence of the analyzes, IFDM was used as a proxy for the development of the capitals, as well as the Income Dispersion Gini Index (IGDR) in the function of evaluating income deconcentration. Among all the variables used to measure access to welfare policies, those shown in Table 4 were those that highlighted *Pearson's* best correlation with IFDM and IGDR, considering, as explained in the methodological chapter, the impossibility of correlating education and health variables with IFDM.

Table 4 - *Pearson's Correlation Coefficient of variables with data in 2016*

	Education	**Saúde**	**Social Security**	**Assistance**
IFDM	-	-	***N/Ap INSS pc***	***CRAs pc No.***
			Coefficient -, 547	Coefficient -, 391
			Sig - ,000	Sig - .048
IGDR	***Tx Registration pc***	-	-	-
	Coefficient –, 398			
	Sig - .044			

Source: Prepared by the authors.

Despite the deconcentration of income, according to the results in Table 4, there was a direct and moderate correlation with education, as measured by the enrollment rate per capita. Therefore, it goes against the debates of Magalhães, Burlandy and Senna (2007), Birdsall, Ross and Sabot (1995) and Piketty (2014) on the importance of providing public and universal education as a way to mitigate income concentrations and generate social justice with opportunities (Vega et al., 2012).

With regard to municipal development, both social security and social assistance fulfill their roles of promoting social protection and economic incentive with direct and moderate correlations with the IFDM. Social security provides dignity by providing social inclusion and access to the income and consumption market, as pointed out by Reis, Silveira and Braga (2013) and Silva et al (2013), while social assistance contributes to the inclusion of low-income and socially vulnerable families in public policies (CRAs function – variable used) (Ribeiro & Miranda, 2019). In addition, social assistance enables income transfers (Resende & Oliveira, 2008).

The correlation tests, moreover, indicated that it cannot be said that there is a direct relationship between development and income equality, given the influence of economic growth, work and income, characteristics that do not necessarily result in income equality, as Hills et al (2019) and Ali (2007) brought.

5. Final Considerations

This study sought to evaluate the capitals of the states of Brazil with regard to development and income equality, in addition to access to public policies for social welfare (education, health, assistance and social security). In addition, to verify if there is a correlation between these variables for such locations, represented an advance for the literature of development and income equality from empirical analyzes.

Regarding the levels of development, income equality and access to public welfare policies, it is empirically contributed by observing the prominence of some capitals, such as Florianópolis and Curitiba, which can be cited as developed and promoting social welfare. Although several other capitals have high levels of IFDM, such locations have great income inequalities and do not give relevant access to social policies for the population, examples of São Paulo and Porto Alegre. Therefore, it is reported that good economic status does not necessarily result in social welfare.

The geospatial autocorrelation tests indicated that the positive citation of two capitals of southern Brazil as developed was not accidental, it was observed that the localities have influence on the results, while the South region had better development indicators while the Northeast showed more income deconcentration.

The correlations tested confirmed associations between municipal development and public policies of social security and social assistance (which was seen in the cases of Florianópolis and Curitiba), as well as the deconcentration of income with access to public education (exemplified in the case of Palmas), thus bringing theoretical contribution by the analysis of the context of the capitals of Brazil.

Among the limitations of this study, we mention the non-use of more robust statistical evaluations, which is explained by the difficulty in finding variables that allow, as well as due to the insufficiency of the sample, which has only the 26 capitals of Brazil. In addition, there was difficulty in collecting more current data for all variables used, which affects the study in terms of temporality. It is proposed for future work the construction of a development indicator superior to the IFDM, which encompasses variables of social security, social assistance, income equality and other inequalities and that does not confuse development with economic growth.

References

Ali, I. (2007). Inequality and the imperative for inclusive growth in Asia. *Asian Development Review, 24*(2), 1–16.

Barros, R. P. de, Henriques, R., & Mendonça, R. (2001). *A estabilidade inaceitável: desigualdade e pobreza no Brasil* (Texto para discussão nº 800). Instituto de Pesquisa Econômica Aplicada (IPEA).

Birdsall, N., Ross, D., & Sabot, R. (1995). A desigualdade como limitação ao crescimento na América Latina. *Revista de Administração Pública, 29*(4), 260–295.

Bobbio, N., Matteucci, N., & Parquino, G. (1995). *Dicionário de política*. Universidade de Brasília. https://politicaonlineblog.files.wordpress.com/2016/06/bobbio-norberto-org-dicionc3a1rio-de-polc3adtica.pdf

Box, G. E. P., Hunter, W. G., & Hunter, J. S. (1978). *Statistics for experimenters: An introduction to design, data analysis and model building*. John Wiley & Sons.

Cardoso, P. C., & Fonseca, D. C. (2019). Adolescentes autores de atos infracionais: dificuldades de acesso e permanência na escola. *Psicologia e Sociologia*(31).

Carvalho, L. (2020). *Curto-circuito: O vírus e a volta do Estado*. Todavia.

Costa, G. P. C. L. da, & Gartner, I. R. (2017). O efeito da função orçamentária alocativa na redução da desigualdade de renda no Brasil: uma análise dos gastos em educação e saúde no período de 1995 a 2012. *Revista de Administração Pública, 51*(2), 264–293.

Costa, S. (2019). Desigualdades, interdependência e políticas sociais no Brasil. In R. R. C. Pires (Org.), *Implementando desigualdades: reprodução de desigualdades na implementação de políticas públicas* (pp. 53–77). IPEA.

Cristaldo, R. C., Senna, J. R. de, & Matos, L. S. (2018). As narrativas fundamentais do mito do desenvolvimento econômico e o neodesenvolvimentismo brasileiro. *Revista de Administração Pública, 52*(3), 527–553.

Draibe, S. M. (2007). Estado de Bem-Estar, desenvolvimento econômico e cidadania: algumas lições da literatura contemporânea. In G. Hochman (Org.), *Políticas públicas no Brasil* (pp. 27–64). Editora Fiocruz.

Dweck, E., Silveira, F., & Rossi, P. (2018). Austeridade e desigualdade social no Brasil. In *Economia para poucos: Impactos sociais da austeridade e alternativas para o Brasil*. Autonomia Literária.

Esping-Andersen, G., Gallie, D., Hemerijck, A., & Myles, J. (Eds.). (2002). *Why we need a new welfare state*. Oxford University Press.

Espinoza, O., González-Fiegehen, L. E., & Granda, M. L. (2019). Avanços e desafios dos processos reformistas no ensino superior no Chile e no Equador: a perspectiva de acesso e financiamento. *Ibero-American Journal of Higher Education (RIES), 10*(27), 25–50.

Furtado, C. (1983). *Teoria e política do desenvolvimento econômico*. Abril Cultural.

Furtado, C. (2002). *Em busca de novo modelo*. Paz e Terra.

Hemerijck, A. (2017). A revolução silenciosa do paradigma de investimento social na União Europeia. In P. H. de A. Rodrigues & I. S. Santos (Orgs.), *Políticas e riscos sociais no Brasil e na Europa: convergências e divergências* (pp. 25–60). Hucitec.

Hills, J., McKnight, A., Bucelli, I., Karagiannaki, E., Vizard, P., Yang, L., Duque, M., & Rucci, M. (2019). *Understanding the relationship between poverty and inequality: Overview report* (CASE Report No. 119). Centre for Analysis of Social Exclusion, LSE.

Johar, M., Sowondo, P., Pujisubekti, R., Satrio, H. K., & Adji, A. (2018). Inequality in access to health care, health insurance and the role of supply factors. *Social Science & Medicine, 213*, 134–145.

Kerstenetzky, C. L. (2000). Desigualdade e pobreza: lições de Sen. *Revista Brasileira de Ciências Sociais, 15*(42).

Lebret, L. J. (1959). *Manifeste pour une civilisation solidaire*. Économie et Humanisme.

Magalhães, R., Burlandy, L., & Senna, M. de C. M. (2007). Desigualdades sociais, saúde e bem-estar: oportunidades e problemas no horizonte de políticas públicas transversais. *Ciência & Saúde Coletiva, 12*(6), 1415–1421.

Moreira, V. de S., & Martins, A. de F. H. (2017). Desenvolvimento socioeconômico em Minas Gerais: identificação de clusters em mesorregiões menos desenvolvidas do estado. *Revista de Desenvolvimento e Políticas Públicas, 1*(1), 125–152.

Neri, M. C. (2019). *A escalada da desigualdade: Qual foi o impacto da crise sobre a distribuição de renda e pobreza?* FGV Social.

Palma, P. (2019). Neoliberalismo, violencia política y salud mental en Perú (1990–2006). *Revista Ciencias de la Salud, 17*(2), 352–372.

Pestana, M. H., & Gageiro, J. N. (2008). *Análise de dados para ciências sociais: A complementariedade do SPSS* (5ª ed.). Edições Sílabo.

Petranski, J., & Ternoski, S. (2020). Relação entre políticas públicas, crescimento e desenvolvimento no centro paranaense. *Agenda Política, 9*(1), 307–337.

Piketty, T. (2014). *O capital no século XXI* (Edição 1). Intrínseca.

Prata, P. R. (1994). Economic development, inequality, and health. *Cadernos de Saúde Pública, 10*(3), 387–391.

Reis, P. R. da C., Silveira, S. de F. R., & Braga, M. J. (2013). Previdência social e desenvolvimento socioeconômico: impactos nos municípios de pequeno porte de Minas Gerais. *Revista de Administração Pública, 47*(3), 623–646.

Reiter, B., & Lezama, P. (2013). Transferencias condicionales y políticas de acción afirmativa en Latinoamérica: la diferencia que políticas de inclusión pueden hacer. *Investigación y Desarrollo, 21*(2), 455–478.

Resende, A. C. C., & Oliveira, A. M. H. C. de. (2008). Avaliando resultados de um programa de transferência de renda: o impacto do Bolsa-Escola sobre os gastos das famílias brasileiras. *Estudos Econômicos, 38*(2), 235–265.

Ribeiro, A. C. A., & Miranda, C. B. dos S. (2019). Capital social e o acesso à proteção social. *Administração Pública e Gestão Social, 11*(1), 79–91.

Rua, M. das G. (2009). *Políticas públicas* (Módulo Básico). Departamento de Ciências da Administração/UFSC; CAPES; UAB.

Sampaio, Y. de S. B., & Vital, T. W. (2015). Desenvolvimento sócio-econômico-ambiental: conceito e problemas para mensuração. *Reflexões Econômicas, 1*(1), 249–274.

Sen, A. (1990). *The standard of living* (The Tanner Lectures). Cambridge University Press.
Sen, A. (1999). *Development as freedom*. Alfred A. Knopf.

Silva, L. L. da, Costa, T. M. T. da, Silva, E. A., & Silveira, S. de S. R. (2013, October 29 – November 1). *A previdência social brasileira como instrumento de política pública*. XVIII Congreso Internacional del CLAD sobre la Reforma del Estado y de la Administración Pública, Montevidéu, Uruguai.

Silva, M. O. da. (2010). Pobreza, desigualdade e políticas públicas: caracterizando e problematizando a realidade brasileira. *Revista Katálysis, 13*(2), 155–163.

Souza, C. (2006). Políticas públicas: uma revisão da literatura. *Sociologias, 8*(16), 20–45.

Vega, R. J. M., Barros, R. P. de, Chanduvi, J. S., Giugale, M., Cord, L. J., Pessino, C., & Hasan, A. (2012). *Do our children have a chance? A human opportunity report for Latin America and the Caribbean*. The World Bank. https://openknowledge.worldbank.org/handle/10986/2374

[i] Doutor em Administração -Universidade Federal de Viçosa

[ii] Doutor em Economia Aplicada pela Universidade Federal de Viçosa. Docente do Departamento de Administração da Universidade Federal de Viçosa.