

# AN EFFORT TO DEFINE REGIONAL INEQUALITIES IN THE CONTEMPORARY WORLD

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## Abstract

Differences in the theoretical and methodological frameworks for the definition and measurement of regional inequality in the contemporary world interfere in the way we understand the varying regional dynamics within each country and affect the development of public policy. In the present study, we discuss recent topics that contemplate regional inequality at the intra-national scale, based on a bibliographical analysis that contemplates the contributions of several authors. The central problem addressed in this paper is the differences and relationships between socioeconomic and regional inequalities. We aim to contribute to the recent research that focuses on the analysis of the dynamics of regional inequality in different sociospatial contexts, in particular, the identification of the determinants of regional inequality and development, and the institutions that most influence these processes, in order to problematize the role of public policy in regional dynamics. We conclude that regional inequality is caused and affected by a complex and interrelated set of elements, at different spatial scales and in different forms. While each country presents its own set of determinants, they are in part related to broader processes, which are present at a global scale. A spatial, multidimensional and multiscale approach will thus be necessary to overcome regional inequalities.

**Keywords:** Regional Inequalities, Social Inequalities, Regional Planning, Regional Problem, Regional Geography.

## Resumo / Resumen

### UM ESFORÇO PARA DEFINIR AS DESIGUALDADES REGIONAIS NO MUNDO CONTEMPORÂNEO

Diferenças no arcabouço teórico-metodológico quanto à definição e a mensuração das desigualdades regionais no mundo contemporâneo interferem na forma como entendemos as diferentes configurações e dinâmicas regionais dentro de cada país e também afetam o processo de políticas públicas. Neste artigo, discutiremos temas recentes que envolvem as desigualdades regionais na escala intranacional, a partir de uma análise bibliográfica que contempla a contribuição de diversos autores. O problema central abordado neste artigo diz respeito às diferenças e relações entre desigualdades socioeconômicas e desigualdades regionais. Pretendemos contribuir com pesquisas voltadas à análise da dinâmica recente das desigualdades regionais em diferentes contextos socioespaciais, especialmente aquelas investigações que buscam identificar os determinantes das desigualdades regionais e do desenvolvimento e as instituições mais relevantes que atuam sobre eles, a fim de problematizar o papel das políticas públicas na dinâmica regional. Concluímos que a desigualdade regional é causada e afetada por um conjunto complexo e inter-relacionado de elementos, aparecendo em diferentes escalas espaciais e de diferentes formas. Embora cada país apresente seu próprio conjunto de determinantes, eles estão em parte relacionados a processos mais amplos, que estão presentes em uma escala global. Portanto, para superar as desigualdades regionais, seria necessária uma abordagem espacial, multidimensional e multiescalar.

**Palavras-chave:** Desigualdades Regionais, Desigualdades Sociais, Planejamento Regional, Problemas Regionais, Geografia Regional.

### UN ESFUERZO POR DEFINIR LAS DESIGUALDADES REGIONALES EN EL MUNDO CONTEMPORÂNEO

Las diferencias en el marco teórico y metodológico en cuanto a la definición y medición de las desigualdades regionales en el mundo contemporáneo interfieren en la forma en que entendemos las diferentes configuraciones y dinámicas regionales dentro de cada país y afectan el proceso de políticas públicas. En este artículo discutiremos temas recientes que involucran desigualdades regionales en la escala intranacional, a partir de un análisis bibliográfico que contempla la contribución de varios autores. El problema central abordado en este artículo se refiere a las diferencias y relaciones entre las desigualdades socioeconómicas y las desigualdades regionales. Nuestro objetivo es contribuir a la investigación enfocada en analizar la dinámica reciente de las desigualdades regionales en diferentes contextos socioespaciales, especialmente aquellas investigaciones que buscan identificar los determinantes de las desigualdades regionales y el desarrollo y las instituciones más relevantes que trabajan en ellos, con el fin de problematizar el rol de las políticas públicas en la dinámica regional. Concluimos que la desigualdad regional es causada y afectada por un conjunto de elementos complejos e interrelacionados, que aparecen en diferentes escalas espaciales y en diferentes formas. Si bien cada país presenta su propio conjunto de determinantes, en parte están relacionados con procesos más amplios, que están presentes a escala mundial. Por tanto, para superar las desigualdades regionales, sería necesario un enfoque espacial, multidimensional y multiescala.

**Palabras-clave:** Desigualdades Regionales, Desigualdades Sociales, Planificación Regional, Problemas Regionales, Geografía Regional.

## INTRODUCTION

The central question addressed in the present study is the differences and relationships among the various dimensions of inequality. The obscurantism that surrounds this topic is one of the greatest challenges for present-day societies, given that it hinders a clearer understanding of the mechanisms that control regional inequality, even when different geographical areas and specific time intervals are considered. This obstructs the identification of both the determinants of regional inequality and the institutions and public policies that are relevant to the transformation of regional conditions, considering each state's political, economic, and social contexts.

The general objective of this paper is to examine the distinctions and relationships between the concepts of socioeconomic inequality and regional inequality. Our goal is to contribute to the research that analyzes the recent dynamics of the regional inequalities found in different sociospatial contexts, in particular, the studies that seek to identify the determinants of regional inequality and development, and to identify the most prominent institutions that work on these questions, in order to problematize the role of public policy in regional dynamics.

The present study is organized into five sections: in the first section, we discuss whether inequality refers only to individuals or also to regions, given that part of the economic mainstream argues that development policies should focus on people and not on places; in the second section, we discuss the relationship between social inequality and regional inequality; in the third, we consider the multidimensionality of inequality, highlighting the complexity of the topic and the different analytical perspectives; in the fourth section, we revisit some of the definitions of regional inequality found in the literature, and propose a new definition, and in the final section, we present our conclusions.

## DOES INEQUALITY CONCERN ONLY INDIVIDUALS OR ALSO REGIONS?

THE social advances observed in developing countries since the turn of the twenty-first century, especially in Brazil, India, and China, have revived existing divergences in the analytical perspectives on the fundamental essence of inequality, returning to discussions on its origin and persistence. The basic question is whether inequality is a characteristic of the relationships among individuals, or whether it may also be applied to the differences among regions.

For Araújo (2011, p.12, 59), inequality may arise at any spatial scale, from the macro-regional scale of the provinces of a nation state to the intra-urban scale. Precisely for this reason, some researchers argue that regional inequalities do not exist, but rather, that the only type of inequality is social inequality.

Analyzing the Brazilian case, Magalhães & Miranda (2007, p. 137) point out that some economists argue that the regional inequalities in income found within the country can be explained by individual characteristics, in particular, the low level of the human capital of the populations of the country's poorest regions. Given this, an increase in the level of education would be sufficient to equalize real wage levels among the different regions, given that capital will tend to migrate to the regions with the cheapest skilled labor.

Based on this interpretation, Pessôa (2001, p. 1) distinguishes two approaches to the analysis of regional inequality in income. One approach refers to the regional inequality in per capita income, while the second refers to the inequality in total income, that is, the concentration or spatial distribution of production. Even so, regional inequalities may be much smaller than we might imagine, and should be assigned the same level of importance as the problem of interpersonal inequality in income. In addition, there would be no reason to consider the spatial concentration of production as a problem.

However, Pessôa bases his argument on the existence of universal labor mobility throughout Brazil and the equal allocation of infrastructure among regions, neither of which would create or intensify regional inequalities to problematic levels. Pessôa (2001, p. 1–2) thus concludes that the differences in per capita income among regions are caused only by the characteristics of each region's workers, because the populations of poor regions tend to include more individuals with characteristics that correlate with low income. Therefore, both theoretically and empirically, the low per capita income

of some regions would be a social problem, and not a regional one. The author thus concludes that public policy should focus on individuals rather than regions.

Barros & Mendonça (1995, p. 1) argue that inequality in income and the distribution of production have been adopted as measures to evaluate the dynamics of social and regional inequalities due to their direct impact on social welfare, in addition to the fact that they are related directly to a number of socioeconomic indices, such as savings levels and the availability of capital, child mortality rates, and indices of poverty. For these authors, there are two sides to the process of the generation and reproduction of income inequality: (i) the inequality of conditions, verified in childhood and adolescence, when individuals accumulate their human capital, primarily through education (the differences in the levels of public and private investment in the individual are emphasized in these stages), which varies according to the capital accumulated by the family and the government investment at a local level, and (ii) the inequality of results, which arises during the competition between individuals in the labor market. Both factors combine to determine very high levels of inequality in countries like Brazil. This inequality is apparent in the social sphere, in the extreme concentration of income in a small proportion of the population, and is manifested spatially in the regional disparities of productive and social infrastructure, which influence both the characteristics of the labor market and the productivity of local and regional production systems.

Barros & Mendonça (1995, p. 2, 48) analyze the connection between the labor market and income inequality (the inequality of results), and emphasize the existence of the wage disparities generated by the segmentation of the labor market, in particular, the disparities between market segments and between the informal and formal sectors of the economy, and discrimination (by gender and race). However, they conclude that the mechanisms of the labor market, which is responsible for the disparities in income among individuals, is influenced primarily by the individual levels of human capital, obtained principally through education. In this context, the authors conclude that reducing the inequalities in the perspectives of vocational training in developing countries like Brazil would reduce disparities in income by 35–50%. For these authors, education is the most important element of social inequality, while regional inequalities would be relatively insignificant.

Notwithstanding the fact that educational indicators are themselves related to social and regional inequalities, they do not embrace all the factors responsible for inequality. A simple increase in the number of years or even the quality of the education offered to the poor sectors of society, as advocated by Barros (2011), would not solve the problem of inequality, whether social or regional. Inequality is a multidimensional phenomenon, caused and influenced by a complex and interrelated set of elements, at varying spatial scales and in different forms. The assumption that providing poorer regions with the same educational indices as the richer regions would be enough to solve regional problems ignores the complexity of the real world, while also assuming that all elements are known and perfectly controlled by public policy. We obviously know that these assumptions are illusory.

The concentration of poor individuals in a given region is not just a social phenomenon that concerns individuals and their choices, in particular, those related to their professional qualification. Many of the factors that influence social inequality are in fact derived from the territory, which may even affect educational opportunities and the level of professional qualification. Here, the spatial inequality in the distribution of education infrastructure within a territory, especially in developing countries, associated with the territorial division of labor and the uneven development typical of the capitalist system, are equally important. These elements do not refer to the individual choices made by people who would supposedly have the opportunity to transcend their poor educational background and lack of professional qualifications. These territorial foundations of inequality are imposed on most individuals, restricting in the extreme the potential to change their current conditions and to modify their reality.

## THE RELATIONSHIPS BETWEEN SOCIAL INEQUALITY AND REGIONAL INEQUALITY

Magalhães & Miranda (2007, p. 138) pointed out that, while education is a necessary condition for development, it is insufficient, on its own, to promote a real increase in this parameter, especially

when measured only in terms of the number of years of schooling, as is typical of the approach adopted by many governments and supranational institutions. In developing countries, like Brazil, in particular, there are often enormous differences in the quality of education offered to different social classes. The ability of the student to learn is also influenced fundamentally by their home environment, especially in terms of their parents' education, access to information, transportation, housing, sanitation, exposure to violence, the local labor market, and the prospects of future gains in income with better education.

As Barbosa (2012, p. 63) stresses, spatial structure determines the range of opportunities available to the individual, whereas spatial inequality increases social and economic inequalities at a national scale. From an alternative point of view, which is not necessarily antagonistic Théry and Mello (2009, p. 12) argue that territorial dynamics are, at the same time, both the cause and the consequence of social disparities. These two viewpoints indicate that social and regional inequalities influence each other in complex but not fully elucidated relationships.

Based on these perspectives, we can see that the problem of inequality is not restricted to the question of the concentration of skilled labor in a given region, but rather that it is essential to consider the other factors that contribute to the scenario. One factor is the quantity and quality of modern production systems that offer significant advances in science, technology, and information for the local context, in addition to the availability of material and social infrastructure, undeniably influence the access of modern-day populations to the goods and services that are essential to human dignity and their well-being. In other words, it is not enough to have qualified labor without the necessary conditions for its use for the social and material development of the population.

For Abdal (2015, p. 23), development is a process that goes beyond merely increasing the effectiveness of the system of social production, but rather, it should also encompass elements such as the diversification of products, the satisfaction of basic human needs, the expansion of capacity, and socioeconomic and political transformation. In addition, as Barbosa (2012, p. 15) states, it is necessary to examine the relationships between development, inequality, and poverty in each historical and spatial context in order to overcome the specific impact of each phenomenon and to understand their patterns of manifestation in time and space.

Magalhães & Miranda (2007, p. 137) highlight the recent studies that have shown that, in addition to the question of education and its link with technological progress, economic growth presupposes geographic capital, which affects the marginal productivity of both labor and capital. As a consequence, the more recent models of economic growth have emphasized the fact that geographical features – including climate, local infrastructure, access to public utilities, knowledge of the local physical reality, the existence of appropriate technology, and political and legal institutions – also have a significant effect on the marginal productivity of capital and labor. In this sense, Magalhães & Miranda (2007, p. 138-139) argue that the territory is a fundamental element for the explanation of regional differences in income, including in developing countries such as Brazil. Given this, we understand that taking into account the spatial, territorial, and regional dimensions of public policy – that is, the formulation of policies consistent with specific spatial features – will be crucial to combating inequality.

## THE MULTIDIMENSIONALITY OF INEQUALITY

We agree with Stiglitz (2013), Piketty (2014), and Atkinson (2015) when they say that, over the long term, the diffusion of knowledge and skills – education of universal quality, labor qualifications, and technological innovations – will combine to reduce inequalities. These authors nevertheless argue that, while improvements in education and professional training are necessary, they are not sufficient to ensure development with equity and social justice, given that their effects can be attenuated or neutralized by powerful forces of divergence.

In Stiglitz's (2013) interpretation, inequality is both the cause and the consequence of the economic system which is shaped, in turn, by the political system. This political system, as the author puts it, is based on its intrinsic inequalities, forming a truly vicious circle, which can only be broken through concerted efforts to modify public policy. Given this, the state is an important player in the dynamics of inequality, either for the action it takes or for what it refrains from doing. It is the state that establishes and enforces the rules of the game, defining when competition is fair and when actions are

illegal and anticompetitive, and what practices are fraudulent and prohibited. The state may also opt to turn resources over to the private sector, either by granting privileged access to natural resources, exclusive financial rates, tax breaks, the control of essential services or by not suppressing the monopolization or oligopolization of markets. The state also modifies the distribution of income through taxes, such as inheritance tax, and social spending, including the funding of public education services, which perpetuate, or even accentuate the inequality of opportunities passed on from one generation to the next.

In general, the political system tends to give extraordinary power to those at the top of the social hierarchy. This power is not only used to limit the redistribution wealth, but also to shape the “rules of the game” in favor of this elite, appropriating a portion of the income produced by the rest of society without revealing the mechanisms, a practise economists refer to as “rent seeking”. This is primarily because state-run institutions tend to be dominated by individuals from the top of the social pyramid, or who have the same mindset.

Rent seeking is not the only reason for inequality, however, given the influence of market dynamics and social forces, as in the case of the many and various forms of discrimination, Stiglitz explains. In this case, inequalities would not be the result of nature processes, nor of abstract market forces. One of the most important factors that influence inequality is the ability of the financial elite to shape beliefs and public perceptions according to its own interests, especially in terms of what is fair and efficient, the strengths and weaknesses of governments and markets, inequality and social mobility. As the author puts it:

Social sciences like economics differ from the hard sciences in that beliefs affect reality: beliefs about how atoms behave don't affect how atoms actually behave, but beliefs about how the economic system functions affect how it actually functions (Stiglitz, 2013, chapter six).

It is not without reason that this author, together with Piketty (2014), and Atkinson (2015), emphasize the conflict of ideas on inequality, always centered on economic growth and social welfare. According to Stiglitz (2013), the battle is always directed by how we perceive the degree of inequality, its causes, and how it can be justified.

Although these intellectual battles usually occur around specific public policies, these disputes actually encompass the ongoing war over perceptions and big ideas, such as the role of the market, the state, and civil society. These are not just philosophical debates, then, but a war to change perceptions on the competencies of different institutions. The weapons used in this war are not necessarily academic in nature, that is, based on theories and evidence, but primarily “mediatic” (derived from the media) and ideological, making use of a discourse that is not always based on the truth, with the purpose of forming and influencing the perception of ordinary citizens (STIGLITZ, 2013, chapter six).

In turn, Piketty (2014, p. 27) points out that, historically, the distribution of income and wealth has always been deeply political, without being restricted to purely economic mechanisms. According to this author, the history of inequality has been shaped by the way political, social, and economic players have seen what is fair and what is not fair, as well as by the relative influence of each of these players and the subsequent collective choices. For this reason, inequality is the result of the combination of the power of all the players involved in the process (Piketty 2014, p. 27).

Piketty (2014, p. 30, 33, 258–259) emphasizes two principal forces of divergence that favor increasing inequality in different national contexts in the contemporary world. The first is the formation of a “society of super-managers” in some countries, due to the growing and extreme disparity of income derived from work, which generates an enormous gap between the income of the top executives of large corporations and the rest of the population. The second force is the existence of “hyper-patrimonial societies” or “societies of rentiers”, typical of countries of slow economic growth (in terms of the annual growth of income and productivity) and high remuneration (the mean capital income, in the form of profits, dividends, interests, rents, royalties, and other revenues derived from capital, in percentage terms), in which inherited wealth increases faster than income from labor and production. Heirs, in this sense, need to save only a limited portion of their revenue, which grows faster than the economy as a whole. Under these conditions, inherited equity outstrips the wealth accumulated in a lifetime of work,

and the capital may be concentrated in an increasingly small proportion of society. These two forces of divergence are intensified by a number of different mechanisms. These phenomena are present primarily in Anglo-Saxon countries, which would lead us to think that institutional differences between nations, rather than general causes and universal principles, play a fundamental role in inequality (PIKETTY, 2014, p. 307).

Improvements in access to education and professional qualifications may explain a certain increase in the standard of living of a society, but not a reduction in its inequality (PIKETTY, 2014, p. 296–299, 471–472). Education and professional experience alone do not explain the rise of the super-managers and the discrepancies in their salaries. There is thus no direct relationship between high wages and either a meritocracy or the marginal product of labor.

One of Piketty's most important contributions, in our view, is the development of a systematic approach to the measurement and analysis of inequality. One way to measure inequality is by breaking wealth down into income from labor and revenue from capital, and examining the specific mechanisms of the concentration of wealth, and the social groups that benefit from this process. Another approach is to analyze social groups based on the metrics of the tenths and hundredths – the 10% richest (“upper class”), the 40% in the middle (“middle class”), and the 50% poorest (“lower class”), for example. This approach also divides the upper tenth into the top hundredth (1%), that is, the “dominant” class, and the subsequent nine hundredths (the “wealthy” class). This approach facilitates comparisons between countries, and between different periods of time in the same country in. It is also possible to examine the relative and absolute proportions of each class and their role in social dynamics.

As an example, Piketty (2014, p. 248–249) addresses the case of the top hundredth. This group represents a small fraction of the population (by definition), but is at the same time a larger social group than that of the “super-elites”, typically of a few dozen or hundred individuals, who attract the most attention. In 2013, for example, France had a population of approximately 65 million people, or 50 million adults, where the top hundredth (1%) comprised 500,000 adults. In a country with 320 million people or 260 million adults, like the United States, the top hundredth would consist of 2.6 million adults. Numerically, these are very important social groups, which are impossible to ignore in any country, not least because they tend to live in the same cities, and often in the same neighborhoods. In all countries, the top hundredth has a prominent place in the social landscape, not only in the distribution of income. The top hundredth represents a group significant enough to have an influence on the structure of the social landscape and the political and economic order of a country. Although Piketty's work does not provide any significant insights for the analysis of the spatial dimension of the regional inequalities within a country, it does highlight the existence of uneven geographical development, which is addressed in more detail by other researchers.

For Harvey (2013, p. 477–478), uneven geographic development corresponds to the concentration of capital and labor in certain regions, which results from a number of different phenomena. As spatial configurations of this type are the focus of substantial long-term investments, they are difficult to change, and become a barrier to the spatial reorganization that may be required during a crisis of capitalism, when territorial and regional arrangement are generally remodeled through spatial fixes (HARVEY, 2013, p. 539–541). This aims to restore the balance disturbed by the cyclical capitalist crisis by devaluing the capital and the productive forces of one place while valuing them in another place, thereby reorganizing the spatial configuration of the capitalist economy. Harvey (2016, p. 139–40) thus argues that uneven geographical development and its contradictions are the crucial mechanisms that allow capital to periodically reinvent itself. Even if these spatial fixes do redirect capital from one region to another from time to time, the capitalist system will remain relatively stable as a whole. In this way, capital never solves its systemic failures because it displaces them geographically (HARVEY, 2016, p. 145).

In turn, Smith (1988, p. 16) sees uneven development as being fundamental to understanding capitalism, given that it is a systematic geographical expression of the contradictions inherent in the construction and structure of capital itself. At least two elements are crucial in the analysis of the uneven development of capitalism: (i) the contradiction between the opposite and simultaneous tendencies of the differentiation and equalization of the levels and conditions of production (SMITH, 1988, p. 19; 2006, p. 190), and (ii) the processes of accumulation, concentration, and centralization of capital, related to the territorial division of labor, which is reorganized from time to time (SMITH, 1988, p. 175). Thus,

the spatial pattern resulting from the dynamics of capital would result in development in some places (or regions or countries) and underdevelopment in others, which can be observed at several spatial scales, but especially at the urban-regional, national, and international scales, which, while pre-existing, have been reinforced by the development of capitalism (SMITH, 1988, p. 19, 195).

Atkinson (2015, p. 294), in turn, has pointed out that the approach to inequality may have a number of different theoretical perspectives, in terms of both its diagnosis and the proposals elaborated to combat it. The economic theories supporting one view or the other, as this author puts it, would determine the different approaches available to a government. Here, the choice of a given economic model can have a profound effect on the appropriateness of proposed policies. Although empirical evidence emphasizes the importance of government intervention, Atkinson assumes that it is necessary to support this theoretically, in order to confront orthodox neoliberal views. It is not simply a matter of deciding which economic model is the most pertinent, in micro- or macro-economic terms, but it is also necessary to consider issues of internal and external policy, based on the principle that the state is one of the principal players that influence the distribution and redistribution of wealth in modern societies (ATKINSON, 2015, p. 335, 364).

From this perspective, Atkinson (2015, p. 297), Piketty (2015, p. 459), and Stiglitz (2013, Preface) all argue that the market economy is not naturally efficient and, therefore, that state intervention is essential to counterbalance the mechanisms that cause and exacerbate inequalities. These three authors provide evidence that every country has its own particular set of determinants in terms of the dynamics of inequality, which is related in part to broader processes on a global scale. These authors seek to understand the phenomenon of inequality at the beginning of the twenty-first century, beginning with the analysis of national perspectives, and highlighting the economic, political, and social mechanisms of contemporary capitalism, which characterize each society, or even the global system, in a more general way, without actually addressing the regional, intranational scale. The contributions of these authors can nevertheless help us to elucidate the problem of regional inequalities within each country.

Stiglitz (2013) states there are significant inequalities in the different variables that represent the standard of living, and addresses a number of mechanisms that underpin inequality in today's society, which are not restricted to issues of income and education. According to this author, all policy requires choices to be made, and should include a redistributive perspective.

In terms of the multidimensionality of inequality, Atkinson (2015, p. 26–27, 365) advocates that the whole state, rather than just a ministry, department or specific agency, should be involved in the mitigation of regional inequalities. This author proposes a broad set of measures that extend beyond taxation schemes and the education system, which studies of inequality traditionally address. As mentioned above, we consider the multidimensionality of inequality to be one of the basic assumptions for any study of regional dynamics, which brings us closer to the positions of both Stiglitz and Atkinson.

Arretche (2015a, p. 6) highlights that inequality can be perceived in many ways: between the poor and the rich, between women and men, and between races, for example, and also in income, access to services, and political participation. While interrelated, each of these facets may follow an independent path. For Arretche (2015b, p. 194), income and access to essential services are the principal elements of social welfare. However, access to essential services is not reducible to income, given that people with the same income may have very different living standards, depending on different services they have access to and on how much their expenses affect their budgets. We can thus infer that different patterns in the spatial distribution of essential services will play an important determining role in the standard of living of the inhabitants of a given region, especially in developing countries.

## REGIONAL INEQUALITIES: A CONCEPTUAL FRAMEWORK

We should initially bear in mind that there are distinctions between the concepts of the “differentiation of areas” and “regional inequalities” which influence greatly how we investigate regional problems. Both concepts are based, in part, on the spatial distribution of the phenomena and

elements that make up the geographic space. However, Hartshorne (1978, p. 14) points out the concept of the “differentiation of areas” has lain at the heart of Geography since its earliest days. This is the knowledge of the Earth’s surface, on which every area is different, according to the variation in the distribution and combination of phenomena in space. Referring to Hettner’s contributions<sup>1</sup>, Hartshorne (1978, p. 20) notes there are two kinds of relationship between phenomena that result in the differentiation of areas, that is, the mutual relationships between different phenomena in one place and the relationships or connections between phenomena in different places. Both are included in the concept of spatial variation.

While the “differentiation of areas” and “regional inequalities” concepts can be conceived as attributes of reality that may be observed from a single criterion or a set of criteria, the fact that there are different areas, and therefore regions, does not necessarily imply the existence of inequality between them. Inequality, in a more general sense, does not refer to the simple irregularity of the distribution of phenomena – such as natural and human resources, economic activities, and social infrastructure – in geographic space. Above all, it refers to the implications of these disparities, at various levels of development, which may provide (or not) access to basic goods and services, and individual and social wellbeing.

Secondly, studies that merely refer to the concentration or dispersion of phenomena in geographic space do not necessarily consider the regional aspect of their objects of analysis, even when they identify the existence of inequalities at a regional level. In many cases, regionalization is only intended to facilitate the visualization of data without any actual regional analysis. This may work well for economic and sociological studies, and other fields of research, but not for Geography, as we shall see from Hartshorne’s (1978) argument, which is presented below.

The problem of the regional aspect in geographic analyses is part of the historical duality between Systematic Geography (the study of elements that form the geographic space) and Regional Geography, which is the study of areas. A regional approach may or may not be present in Systematic Geography, given that it corresponds to the application of regionalization techniques to the study of specific phenomena. For Hartshorne (1978), as the primary goal of Systematic Geography is self-sufficient and its analyses seek to obtain as profound a knowledge as possible, the spatial distribution of these phenomena and their interrelationships may be secondary or even irrelevant. In the specific case of the regional method, this author points out his objective is to describe and explain the origin of the differentiation of areas. That is to say, the character of each region, which results from the interrelationship of phenomena located within the same area and the link between these phenomena and different places. This is the basis for what we know as Regional Geography. Each region would thus be the result of a given combination of phenomena, which are more or less closely integrated with one another. The phenomena are analyzed from a regional perspective, in other words, according to their contribution to the characteristics of a given region.

Hartshorne (1978, p. 129) nevertheless argues there is no dichotomy or dualism in Geographical science. On the contrary, there is a gradient along a continuum, from studies that analyze a specific phenomenon to those that examine complex combinations of phenomena within a given area, that is, ranging from topical or systematic analyses to regional ones. Both extremes involve the two methods, to a greater or lesser degree, whether the researcher is aware of this or not.

In criticizing classical authors who defend exceptionalism in Geography, Schaefer (1953) argues that regional studies use knowledge generated by systematic studies and vice versa, without any hierarchy between them. Schaefer thus opposes Hartshorne (1978), who recognizes the importance of both approaches but defends the regional method as the heart of the discipline.

According to Schaefer (1953), Systematic Geography obtains its data from Regional Geography and is, to some extent, guided by it in terms of which types of law should be applied. Regional geography, in turn, would try to apply and test the rules and laws formulated by systematic geography, overcoming the purely descriptive approach based on the simple identification of the unique character of a region. Consequently, regional geography would seek to identify the patterns and regularities that explain not only the unique character of a region but also the interaction between the most important geographic variables that play a role in social processes and confer a certain similarity on phenomena and processes observed in different regions. Schaefer thus argues that Regional and Systematic

Geography are thus inseparable, and are equally indispensable elements of the discipline.

To expand the debate further, the two questions highlighted above – firstly, that the “differentiation of areas” is not synonymous with “regional inequalities” and, secondly, that the regionalization of a phenomenon does not necessarily imply the adoption of a regional approach – are essential to elucidate the difference between socioeconomic and regional inequalities. The examination of socioeconomic inequalities is not necessarily considered when interpreting inequality in the spatial dimension, and may even avoid the need for the spatialization, territorialization or regionalization of the data. Socioeconomic inequalities also refer to purely economic data, typically measured in terms of per capita GDP, although other indices can be used, as Arretche (2015b) points out. The examination of regional inequalities depends on a spatially-based approach, which includes not only the description of the distribution of phenomena in geographic space, but also the causal explanation of this distribution, through the analysis of the geographical determinants of the process. As regional inequalities also have a multidimensional character, regional studies must transcend the analysis of purely economic phenomena.

Taking the debate one step further, Barca, McCann & Rodríguez-Pose (2012, p. 136) recall the importance of geographic space for socioeconomic development. In the context of globalization, in particular, questions such as human capital and innovation (endogenous growth theory), agglomeration and distance (New Economic Geography), and institutions (institutional economics) have come to the fore. However, the notion of geographical space has been neglected in general, becoming increasingly “slippery” and treacherous, while the concepts of capital, goods, people, and ideas have become much easier to assimilate, and thus, less “sticky” and “thick.”

Barca et al. (2012, p. 136) go on to show that, since the 1950s (with rare exceptions), development policies around the world have been adopting the same theories and strategies which stem from the supply-side, with top-down and sector-based characteristics, largely relying on state aid and resulting in the same solutions being applied to similar problems in different places, thus disregarding the local and regional specificities of demand. The strategies adopted have almost invariably been the provision of infrastructure and, above all, industrialization, as these two axes of development are relatively simple, tangible, and popular. The visibility of the physical infrastructure and the velocity at which it can be created make these options extremely attractive to decision-makers, principally with electoral success in mind. The emphasis on top-down policies and the total neglect of the territorial dimension have resulted in policies that lack equilibrium and are incapable of promoting self-sustaining development. While the impacts of expanding infrastructure may sometimes be positive, they have often led to economic agglomeration, regional polarization, and the increasing economic marginalization of peripheral regions, as observed in both developed and developing countries. Similarly, industrial policies based on financial incentives and subsidies have tended to waste resources on declining, “lame duck” industries, rather than assimilating the economic heterogeneity that has emerged with globalization (BARCA et al., 2012, p. 137). For Barca et al. (2012), this reflects a divergence of perspectives between the “spatially-blind” and “place-based” approaches (Figure 1).



Prepared by SILVA (2021) based on: BARCA, Fabrizio; MCCANN, Philip; RODRÍGUEZ-POSE, Andrés. The case for regional development intervention: place-based versus place-neutral approaches. *Journal of Regional Science*, vol. 52, n. 1, 2012, p. 134-152.

Figure 1 - Principal points of the “spatially-blind” (or “place neutral”) and “place-based” approaches to policy making (adapted from Barca et al., 2012).

Beyond the radical aspects of both approaches, Barca et al. (2012, p. 148) highlight that regional development includes the participation of both local and external players, as well as policies focused on people and places. Therefore, policies should not be designed considering only a “space-neutral” or a “place-based” approach. Likewise, governance should not be unidirectional – either top-down or bottom-up – but rather, multilevel, considering local, regional, and national scales and the horizontal relationships among the public, private, and civil society sectors at each scale.

The continuum presented by Hartshorne (1978, p. 129) separates “topical” and “regional” studies at its extremities, but merges them to varying extents in the interim. Here, we can perceive two other gradients, one formed by the determinants of the regional problem, which ranges between more and less spatial components, and a second gradient, which ranges between spatial approaches and approaches that ignore geographic space altogether, within the scope of both academic research or policymaking.

This leads us to a fundamental question – What is a regional problem? (Figure 2). As Monasterio (2009, p. 12) points out, differences in the conception of what a regional problem is and, consequently, the proposals designed mitigate these problems, may further aggravate regional inequalities. Public policies resulting from the adoption of different regional problem concepts will often generate measures that conflict with one another. In other words, the solution of one regional problem can result in the

aggravation of others, depending on how they are defined.

## What is a regional problem?

The following typology groups similar viewpoints, considering the distinction between three common terms:

- **concentration:** the location of specific market segments, usually the industrial sector, within geographic space;
- **agglomeration:** the general distribution of economic activities, in particular, industrial production, and
- **specialization:** a given sector's share of the overall production in a target region.




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### # 1. Regional problems as a critique of agglomeration

The simple fact that production is not distributed homogeneously throughout a territory can be seen as an essential problem to be remedied, irrespective of the distribution of the population or any other economic criteria. A region with greater economic prominence tends to benefit from public policies, which tend to concentrate investments increasingly in these regions to the detriment of other, more peripheral regions. Excessive agglomeration increases political instability and jeopardizes the integrity of the national territory by generating separatist pressures, not only in more dynamic regions, whose populations may consider peripheral regions an economic burden, but also in underprivileged regions, where the populations may feel exploited and victimized. Agglomeration also involves diseconomies that increase costs for the central government.



### # 2. Regional problems as a critique of concentration or specialization

Some regions lack the most important sectors found in the most developed regions. Given this, the traditional strategy for the resolution of regional inequality is to transfer industries to problem regions. More efforts are now being made to set up more technology-intensive activities and more dynamic sectors of the service industry in underprivileged regions.



### # 3. The regional problem of inequality based on indices of wellbeing

Regional inequality in per capita income is the real problem, given that this index represents a population's living conditions. The success of a policy can be measured in terms of its capacity to reduce the disparities between the per capita incomes of poorer and more developed regions. This regional problem is thus transmuted into a social problem, which demands social policies aimed at individuals.



### # 4. The regional problem of regions with low, concentrated income

Poor regions are inhabited by the individuals with the lowest income in a given nation. The concept of justice should be crucial here, that is, the welfare of the lowest economic classes of the poorest regions should matter more than the population as a whole or the average individual. Given this, regional policies should focus on the distribution of personal income in poor regions, and on the wellbeing of the lowest income groups in these regions.



### # 5. Regional problems as unwanted trajectories of per capita income

Problem regions have lower equilibrium trajectory rates, so even if they temporarily record higher growth rates than developed regions, the differences in per capita income would persist in the long term. In addition, some regions which were once dynamic and had above-average income may lose their relative position in the national income ranking.



### # 6. Regional problems as missed opportunities

Regional problems are associated with underused or untapped opportunities arising from the lack of a key element in the region or the failure of coordination between players. Regional policy should thus be a way of catalyzing development efforts, overcoming bottlenecks, and promoting innovation in depressed regions.

Prepared by SILVA (2021) based on MONASTERIO, Leonardo Monteiro. *O Que é um problema regional? Uma nota preliminar.* Boletim Regional, Urbano e Ambiental (IPEA), n. 3, p. 7-13, 2009.

Figure 2 - The six principal facets of the analysis of regional problems (adapted from Monasterio, 2009).

All the aspects considered by Monasterio (2009) are relevant to the understanding of regional problems, with varying degrees of applicability, depending on the country or the region of that country.

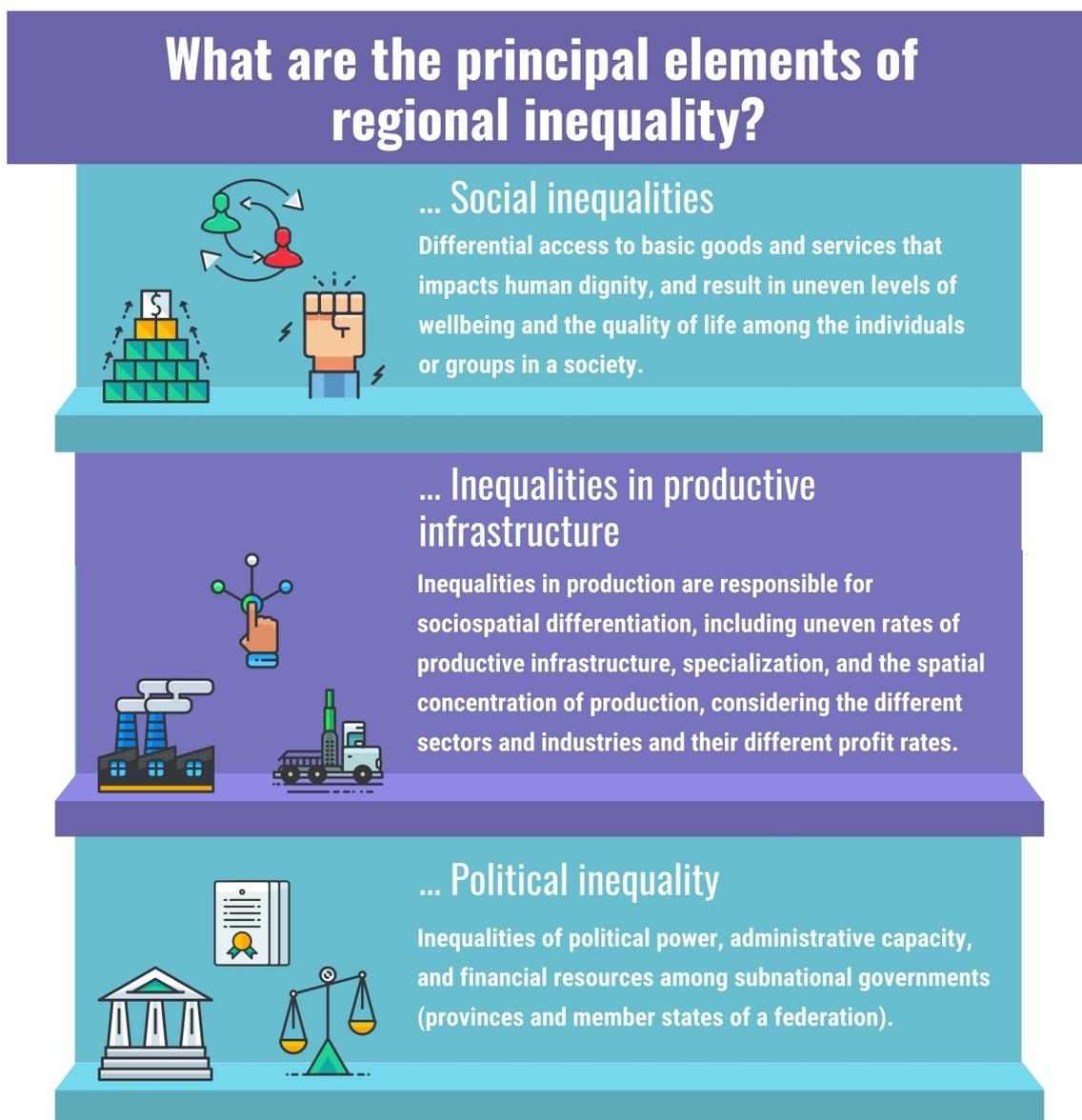
If we examine spatial organization in detail, especially in developing countries, we will find variation in economic, political, social, cultural, and environmental characters which, in addition to their intrinsic diversity, will present traces of social and economic inequality, which includes a spatial dimension that can be best understood through the regional method.

As mentioned above (SILVA, 2019), the scope of the regional approach by government departments, and consequently, the effectiveness of public policies, is directly proportional to the complexity and relevance of the concepts of region employed by the institution, the diversity of the regionalization considered, and the adequacy of the theory in relation to recent regional dynamics and the current configuration. These factors tend to determine the coverage and depth of the diagnoses, strategies, and proposals of public policy on regional issues, despite the political and economic choices that permeate government planning, and interfere in the cohesion of these three spheres. The continuum presented above can be used to classify federal government policies implemented in Brazil between 2003 and 2014, as either spatially-blind or place-based (Figure 3), as discussed originally by Barca et al. (2012; Figure 1), while also encompassing the various definitions of regional problem presented by Monasterio (2009; Figure 2).



Figure 3 - The variation in the regional perspective (“spatially-blind” vs. “place-based”, following Barca et al., 2012) of Brazilian federal policies applied to different sectors of the economy between 2003 and 2014 (adapted from Silva, 2019).

Considering the questions discussed in the present study, we understand social inequality as the differential access to basic goods and services that impacts human dignity and creates uneven wellbeing or the quality of life for different or groups in a society. In addition to these social inequalities, however, regional inequalities also include (Figure 4): (i) the inequalities in production that are responsible for sociospatial differentiation, including uneven infrastructure, specialization, and the concentration of production, in different sectors, that have varying profitability, and (ii) inequalities of political power, administrative capacity, and financial resources among subnational governments (provinces or the member states of a federation). The resolution of a regional problem thus involves the recognition of the existing phenomena and processes that generate regional inequalities, and the search for solutions to overcome or mitigate these inequalities to achieve greater equity among regions.



Source: Organized by SILVA (2021), based on: SILVA, Simone Affonso da. A questão regional no âmbito das políticas públicas federais. Doctoral dissertation in Human Geography - Faculty of Philosophy, Letters, and Social Sciences, University of São Paulo, São Paulo, 2019.

Figure 4 - The principal elements of regional inequality, according to Silva (2019)

It should be noted that no regionalization is passive in terms of the process of production or the reproduction of geographical space. Diniz (2013, p. 6) makes an important observation on the regional dimension, highlighting the need to overcome the traditional view that a region is only a geographic

area, a territory defined by its natural, economic, and social indicators. Although such indicators are fundamental to the description of a territory, they are not sufficient to understand its problems and guide effective action. A territory also has its own history and culture, and therefore, its own political identity. Its population and institutions (public, private, or organized by civil society) should thus be considered to be the players in the development process, which requires the combination of multilevel actions from all the players in the region.

## CONCLUSION

Considering the questions discussed in the present study, we conclude that regional inequalities are determined and influenced by a complex and interrelated set of elements, which may occur at different spatial scales and in different forms. Regional inequalities are not limited to and cannot be confused with socioeconomic inequality, even though this is a fundamental component of the dynamics and configuration of any region.

While each country will present its own unique set of determinants, in the contemporary world, these determinants are usually related to broader processes on a global scale. To overcome current inequalities in regional processes, then, any analytical approach should thus be, at the same time: (i) spatial, considering the spatial and regional dimensions of the phenomena, whether from an academic perspective or from the viewpoint of public policy making, (ii) multidimensional, that is, covering all aspects, including economic, social, and political dimensions, and (iii) multiscale, considering the phenomena that determine regional dynamics at varying geographic scales, with different levels of prominence and unique characteristics in each geographical area.

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## NOTES

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Supplementary material is available at: [https://figshare.com/articles/book/Supplementary\\_Material\\_-\\_An\\_effort\\_to\\_define\\_regional\\_inequalities\\_in\\_the\\_contemporary\\_world/14079578](https://figshare.com/articles/book/Supplementary_Material_-_An_effort_to_define_regional_inequalities_in_the_contemporary_world/14079578).

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