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**Spatializing Poverty: Inequality and Affordability in Washington, DC**

**Introduction**

In her 2013 TEDx talk at the University of California Berkley, Ananya Roy encourages listeners to unknow poverty. Reflecting on her encounters with the poor in India, she posits that it is important for scholars and activists to “ask third world questions of the first world” (Roy 2013). For example, why are there so many homeless on the streets of American cities? Is it acceptable for the government of the most powerful nation in the world to allow its citizens to be homeless? In asking these types of questions, researchers can expose the limitations of democracy in so called “developed” nations and explore poverty through new and relational lenses. This paper will attempt to employ such a relational approach to poverty, looking at Washington, DC as a case study. Through critical analyses of the spatial data available on poverty in our nation’s capital, namely poverty maps, questions will be asked about inequality within the city, how the city government is addressing it, and to what extent their interventions are successful at creating a preserving an urban environment that is inclusive, livable, and affordable for its residents.

Poverty mapping has become one of the most influential techniques employed by global development practitioners. Powerful multi-national institutions such as the World Bank have embraced poverty mapping as a way to increase the efficiency of development interventions by spatially targeting the most impoverished regions, thereby eliminating “leakages” of benefits to
wealthier populations (Atia 2014, 20-21). However, the use of poverty maps is by no means limited to the “developing” world. Countries like the United States have been producing poverty maps for decades now, usually through their respective Census Bureaus. The data displayed in these poverty maps can provide useful insights for policy makers, however it is important to critique the data behind the maps and the methodologies used in their production. These considerations are especially important in a city like Washington, DC. Were DC to be granted statehood, it would have the highest level of income inequality for any state in the country (Naveed 2017). Yet how you measure income inequality and at what scale you do so can greatly affect how DC compares to other major metropolitan areas. Equally as important when considering poverty and inequality are factors that are left out of the measurements such as affordability (Gregory 2017). For this reason, it is necessary to first provide background on definitions poverty, poverty measurement, and poverty mapping before analyzing their applications to Washington, DC.

**Defining Poverty: Theories and Numbers**

Poverty is a complex phenomenon, and one that has not gone understudied. There have been many attempts to define poverty in an operational manner so that governments and institutions can them create policy interventions to tackle poverty as a societal problem. Typically, these definitions rely upon statistical measurements of factors that influence poverty such as income. These operational definitions can be divided into two categories: Absolute Poverty and Relative Poverty.

*Absolute Poverty:*

According to the United Nations, absolute poverty is characterized by “severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter,
education, and information” (United Nations 1995, 38). This definition is then operationalized by assigning a monetary value to the income level necessary to prevent such deprivation. This is exactly what the United States has done through the creation of the “poverty line.” Such a form of poverty might seem like it would be uncommon in a rich country like the United States, but it does exist and is considered by some to be an unacceptable failure of governance (Raphael 2013, 5).

Relative Poverty:

In contrast to absolute poverty (and thus also in contrast to the way in which the US government views poverty), there is relative poverty, sometimes referred to as overall poverty. Relative poverty is perhaps a more useful conceptualization of poverty in developed countries because it takes into account exclusion from certain activities or ways of living that would be considered the norm for a country or regions (Raphael 2013, 6). According to Rainwater and Smeeding

The argument is that objectively people cannot carry out the roles, participate in the activities, or maintain the social relations that are definitive of mainstream members of society if their resources (over some period of time) fall short of a “certain minimum”. In such a situation, inadequacy of resources precipitates a lower-class style of life that is reactive to the inability to live the life identified with the standard package (2003, 147).

This conceptualization of poverty is operationalized through measurements such as affordability wherein the costs of living and participating in activities are taken into account in conjunction with an individual’s income. Relative poverty measurements, though they can be multidimensional, are not perfect however. One flaw is that they rely on measurements in relation to the median or “normal” levels on income or access to certain activities. This means that if the median declines, relative poverty can actually decrease even though, on the whole, the population is getting poorer (Haveman 2009, 391). The concept of relative poverty does however
begin to bridge the gap between numerical measurement of poverty and theoretical conceptualizations of it.

*Theorizing Poverty:*

Both the underlying causes of poverty and the ways in which it is experienced have been theorized by geographers and other scholars. Michael Katz has laid out six ways in which poverty has historically been understood:

- **Persons.** Poverty is the outcome of the failings of individuals or families.
- **Places.** Poverty results from toxic conditions within geographic spaces.
- **Resources.** Poverty is the absence of money and other key resources. Political economy. Poverty is the by-product of capitalist economies.
- **Power.** Poverty is a consequence of political powerlessness.
- **Markets.** Poverty reflects the absence of functioning markets or the failure to use the potential of markets to improve individual lives (Katz 2015, 43).

Without going into each of these understanding of poverty, this paper will adopt a relational approach to poverty which seeks not to silo poverty into one simple framework or explanation, but rather “views persistent poverty as the consequence of historically developed economic and political relations” and that “rejects the individualism of neo-liberal rational choice models by emphasising the effect of social categorisation and identity in reproducing inequality and making exploitation socially viable” (Mosse 2010, 1157). This perspective on poverty allows us to see beyond the numbers that go into some definitions of poverty and instead to view poverty holistically and to acknowledge both the material elements of poverty as well as the social and discursive elements that help to produce and reinforce it (Lawson 2014).

**Poverty Measurement in the United States**

Having outlined the different definitions and theoretical conceptualizations of poverty, this paper will now look at how the United States government has historically dealt with poverty as a problem and how the government has gone about measuring it.
The New Deal signaled the dawn of a new era with respect to poverty policy in the United States. Not only did it create universal entitlement programs, such as social security, but it also introduced means-tested government programs that often came with conditionalities to receiving benefits. These non-universal programs were an early example of the US attempting to measure poverty in such a way as to target specific populations in an efficient way that insured the taxpayers a return on their investment. Discursively, these programs had the effect of reinforcing the narrative around the poor that some were “deserving” of government aid while others were mere “chiselers” (Fraser & Gordon 1994, 321).

While the New Deal played an essential role in the development of poverty policy in the United States, it was Lyndon Johnson’s War on Poverty that left the most indelible mark on poverty measurement in the country. Johnson’s “war on poverty” had the ambitious aim of eliminating poverty within a single generation (Cancian and Danziger 9). With this stated goal, the government needed a statistical measure for counting the poor. So, the Census Bureau developed the “poverty line,” which, as discussed earlier, is an absolute measurement of poverty based upon annual earned income for each living unit. The poverty line is a threshold calculated based on the size of the family and the age of its members which is adjusted annually based on inflation as measured by the Consumer Price Index for All Urban Consumers (United States Census Bureau, 2017). Of additional importance, especially when considering poverty in a city like Washington, DC is the fact that the poverty threshold does not vary geographically (United States Census Bureau 2017).

Measuring poverty in this way comes with several assumptions; namely that money can buy things people need, that income is an acceptable proxy for welfare, and that a particular year’s income is a suitable indicator of longer-run income (Haveman 2009, 389). It
further assumes that the income necessary to ward of poverty is the same across the country. This is obviously problematic when applying Census poverty data to Washington, DC, which is one of the most expensive cities to live in, largely due to the high cost of housing (Jayakumar 2013). More on this will be discussed in the coming sections.

Though absolute, income-based poverty measurement has informed the official government statistics on poverty for over a half century now, there have been other attempts to measure poverty in the United States. These measurements have ranged from similar absolute calculations based instead on consumption or assets to more qualitative indicators such as capabilities and subjective poverty (Haveman 2009, 393). There are even multi-dimensional poverty indicators being applied to the US, which are typically more used in “developing” countries where less reliable and spatially fine data is available (Cook and Frank 2008, Dhongde and Haveman 2015). These indicators attempt to “predict” poverty based on non-income related variables such as education and access to food.

**Poverty Mapping**

Having outlined how poverty is measured in the United States, we can now begin to look at poverty mapping. Creating a poverty map involves displaying information about poverty (such as the percentage of the population living below the poverty line) compartmentalized within discrete spatial units (such as a census tract or county). The information portrayed on these maps can be of great use to policy makers who are looking to implement poverty reduction programs. The maps provide an easy-to-understand visualization of the spatial variability of poverty within a region. According to the World Bank, this understanding of the distribution of poverty is incredibly important because it “helps to ensure that antipoverty programs reach the poor and that the leakage of the benefits to those who are not poor is limited” (Bedi et al 2007, 3). Apart
from spatial targeting, the maps are also useful for understanding the geographic determinants of poverty which can be of use to regional planners (Bedi et al 2007, 4). In describing the utility of poverty maps, the World Bank and others attempt to portray poverty maps as a de-politicized tool which only displays “truths” about the situation on the ground in a region. However, many geographers take issue with this portrayal of maps as neutral.

J.B. Harley asserts that, since knowledge is a form of power and since cartography is a way of displaying particular forms of knowledge, maps are inseparable from the power dynamics that they are produced within (Harley 1988). Maps are therefore “value-laden images” wherein both what is shown and what is not shown reflects the conscious decisions made by the cartographer that are influenced by history, ideology and more (Harley 1988, 278). This is certainly the case with poverty maps. Hidden “behind” the map are the methodologies used to produce it as well as the intentions of the individual or institution that produced it. For example, the use of poverty maps and the rhetoric associated with spatially-targeted poverty reduction programs align with the broader neoliberal framework of development which emphasizes “efficient” governance over universal social welfare programs (Atia 2014, 20). These maps are also typically produced by policy experts and reflect top-down knowledge production. They enable governments to point to certain populations and justify their actions through labelling them as poor or not poor. As Harley remarks, “the ideological arrows [of maps] have tended to fly largely in one direction, from the powerful to the weaker in society” (1988, 300-301).
Figure 1 shows a standard poverty map of the District of Columbia. Given the extensive data collection capabilities of the US Census Bureau, information is displayed at the census tract scale, a relatively small spatial unit. Thus, the map is able to portray, with fine detail, the spatial variability of poverty across the District. However, it is important to keep in mind what the map is not showing. For instance, the map asserts that it shows the percentage of people living below the poverty level in each tract. However, it does not explain what the poverty level is or how it is calculated. In this case, the map was utilizing the Census Bureau’s measurement of poverty, which means that unique factors to DC, such as the high cost of living, are not taken into account. Because of this, the actual incidence of poverty could be much higher across the city. Additionally, we cannot make assumptions about the characteristics of an area based on the information displayed on the map. For example, the census tract located directly west of the White House is shown as having a high incidence of poverty. However, it would be misleading to classify such an area as “poor”. The Foggy Bottom neighborhood, most of which is captured within that tract, is composed of predominately students. Students typically have low incomes...
and thus would be categorized as poor by the Census if they were captured in the surveys that went into making the map. So, in this case, we have an example of abnormalities in the underlying data leading to a false classification of the Foggy Bottom neighborhood as poor, when in reality it is one of the most affluent communities in the District.

Finally, this map only shows data related to income. As discussed earlier, a relational perspective on poverty asserts that poverty is shaped not only by income but by other material, social, and discursive structures. Race is one key factor left out of this map. When compared to Figure 2, which displays the percentage of African Americans by census tract in DC, the poverty map appears to be a reflection of more than just the monetary measures of poverty.

A City Divided: Spatial Variability of Poverty in DC

Looking at both the maps of poverty and race in DC, there is a clear spatial pattern. Poverty and race are not evenly distributed throughout the city, and there appears to be a high degree of what geographers refer to as spatial autocorrelation. That is to say regions characterized by one demographic are likely to be clustered near regions with similar characteristics. Regarding race, there is a clear East/West divide in the district, with the eastern
half of the city being predominately African American and Northwest DC being predominately white. Poverty tends to follow these same lines.

Statistical data back up these observations. According to a 2015 memo from the Brookings Institution on Segregated and Concentrated Poverty in the Nation’s Capital, 38% of predominately black neighborhoods have over 30% of their families living below the poverty line. Compare this to majority-white neighborhoods in DC, 94% of which have less than 10% of their families living below the poverty line (Butler and Grabinsky 2015). The data clearly point to the conclusion that DC is a city shaped by segregation along both racial and class lines. This is a troubling finding, particularly when one considers the effects that such segregation has on widening the wealth gap. A 2018 report from the Equality of Opportunity Project found that one of the most important factors driving the wealth gap between blacks and whites was neighborhood demographics. Researchers found a strong negative correlation between racial and income segregation and economic mobility (Chetty et al 2018).

However, it is not just with respect to space that the Washington, DC is divided. The capital is also one of the most unequal places in the country. The 20/20 ratio (which compares the proportion of income earned by the top and bottom fifth of the population) for Washington, DC is 29.2, meaning that the top 20% earn over 29 times the income of the bottom 20% (Gregory 2017). Over 50% of the city’s income is earned by the top fifth of earners, meanwhile the bottom fifth earn under 2%. This disparity has major implications for affordability, particularly in the housing market where significant pressure is exerted by “fierce competition for larger units from affluent singles and couples” (Taylor 2016). According to the National Low Income Housing Coalition, an hourly wage of $33.58 is required to afford a 2 bedroom apartment in the city, making DC the second most expensive “state” to live in (Aurand et al
In a city with a minimum wage of $12.50 per hour, it is easy to see how the high cost of housing can place a burden on poor communities.

**Applied Perspective: Affordable Housing in Washington, DC**

To begin, it is clear that the federal and city governments are aware of the spatial distribution of poverty as shown by the poverty map. Figure 3 shows a map of the city’s “targeted employment area” which clearly corresponds with the most impoverished regions of the city. But to tackle poverty in DC, policies must find a way to also tackle affordability and segregation. Intervening in the city’s housing market through the construction of more affordable housing could be one way to achieve this.

DC has what has been described as an affordable housing crisis (Schweitzer 2018). Finding affordable housing is a major issue for middle and low-income individuals and families. This is important because access to affordable housing is one of the key factors in developing an inclusive city (Taylor 2016). Effective affordable housing programs can combat economic and racial segregation and displacement while promoting and preserving diverse communities (Howell 2016).

These kinds of programs are badly needed in DC, where neoliberal governance has largely shaped the city of the past two decades. A 2016 study from the Urban Institute noted that while the overall housing supply has increased in DC, development has overwhelmingly focused on high-end housing units while the number of affordably priced units was cut in half between 2005 and 2012 (Blumenthal et al 2016). This is shrinkage of affordable housing has occurred
during the same time when DC was selling off public shelters to private developers (Wells 2014). So, it is not surprising that alongside this crisis of affordable housing, the city continues to face a homelessness issue. Nearly 7000 individuals are homeless in Washington, DC, leaving it with one of the highest per capita rates of homelessness for any major American city (Chason 2018).

Thus, it is clear that affordable housing is an important tool for DC to utilize in addressing economic and racial segregation, and a tool that the city needs to use more. The question remains of how the existing affordable housing programs have been implemented spatially across the city. Figure 4 reveals that, for the most part, affordable housing has been preserved and constructed in areas with already high incidences of poverty. This means that there has not been significant integration between different socioeconomic communities through affordable housing programs. Going forward, this should be a goal for the city government.

Conclusions

The US is the richest country in the world, yet this does not mean that extreme poverty and other “third-world” problems do not exist within its borders. Since the 1960s the US Census Bureau has been responsible for measuring and mapping poverty with the US. They have adopted an absolute, income-based metric for measuring poverty and setting the poverty line
which does not value geographically. This type of measurement, and the resulting maps that are produced from it, leave out many important aspects of poverty. A relational perspective reveals the interlocking social, economic, and discursive oppressions that produce poverty. Washington, DC provides a case study through which the use of poverty maps can be analyzed. Though not perfect, the poverty map of DC does reveal important spatial socio-economic patterns; namely the intersection of race and class and segregation across the city. Unfortunately, the city has failed to effectively tackle issues of affordability and segregation through its existing affordable housing programs.

**Works Cited**


