GEOG701 Literature Review

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Contents

1 Galster's Neighborhood

1.1 Discuss the definition

'Neighborhoods' are a critical concept in urban social science, underlying investigations of how spatial contexts affect behavior and outcomes as well as how space changes over time. Yet, a concrete quantification of what constitutes a neighborhood is not universally agreed upon. George Galster (2001) attempts to define 'neighborhood' in a way that lends itself to quantification, including several dimensions of neighborhoods which are spatially contained, and against which hypothesis can be tested: "Neighbourhood is the bundle of spatially based attributes associated with clusters of residences, sometimes in

conjunction with other land uses". These attributes (dimensions) include characteristics regarding the natural and human-constructed environment, but also demographics, socio-interactive characteristics, and sentimental value. While Galster's dimensions are not the end of neighborhood quanitification, they are a suitable starting point for this literature review. In particular, this review will explore dimensions that intersect with specific areas of public policy: A) school systems, which has a very straightforward application to galster's neighborhoods through the use of discrete geographic units; 2) homelessness, which complicates quantification through Galster's neighborhoods due to it's reliance on residencies; and 3) policing, as a specific subject to study variation across neighborhood units.

1.2 Externality spaces

1.3 Other approaches to defining neighborhoods

2 School-Neighborhood Nexus

2.1 School Catchments

My entry to this field began with considering the spatial elements of schools. Of particular interest to me is the intersection - the nexus - of schools and neighborhoods. Schools, under Galster's definition, fall within the 'taxes and services' dimension of neighborhoods. However, unlike neighborhoods, schools have discrete boundaries that are drawn by a governing body that determine which students will attend that school - called school attendance boundaries or school catchment zones. As well, these boundries fall within the geography of larger (also drawn) school districts, which themselves fall within the boundaries of individual cities and counties. These nesting, discrete boundaries have implications for how we concieve of different spaces, and the higher resolution spaces have stronger impacts for how we concieve of individual neighborhoods; and crucially, they lend themselves well to measurements and hypothesis testing via spatial statistical methods.

School catchment zones are considered from a variety of perspectives depending on the context. Saporito and Van Riper (2016) investigates whether or not the particular regularity of the catchment zones across the US has any implication for reducing or exasperating segregation, similarly to how congressional districts are drawn to capture a particular voting population, a practice known as gerrymandering. The find that on average, irregularly drawn catchments tend to have lower levels of segregation than regular (rectangular) catchments, suggesting that policy makers draw irregular catchments to increase diversity in their schools. However, this could be a function of boundary drawing in different urban contexts - urban cores tend to be smaller with more heterogenous populations, whereas rural areas necessarily need to be larger and have a more homogenous population.

Monarrez and Chien (2021) wrote an extensive report for the Urban Institute that explicitly analyzed school catchments as a mechanism for segregation, and highlighted cases in the U.S. where intense pockets of segregation persist, even though the general levels of school segregation have decreased in recent decades. While this report performs a very interesting analysis linking these pairs of highly segregated schools to the inequalities created by the New Deal's Home Owners' Loan Corporation redlining policies using historical maps, it unfortunately utilizes a privately sourced dataset, rendering the findings impervious to reproduction.

A common theme across all of these studies is the potential for the drawing of school catchments to function as an explicit tool for policy makers to decrease segregation; 'good gerrymandering' (Owens (various), Reardon (various)). I aim to contribute to this literature through the employment of optimization modeling to draw school catchment zones.

Despite their importance and relevance to the study of spatial contexts and their effects, school catchments are very difficult to study in the U.S due to a lack of institutional support for catchment data - the latest nationally representative data year is the 2015-2016 school year, and even this is not without a variety of issues with data accuracy which can cause issues when using software to perform spatial statistical analyses on catchment data. Two well-published scholars that are highly relevant to me for this subfield are Ann Owens at UCS and Sean Reardon at Stanford.

2.2 Finnish context

Kauppinen (2022) Bernelius (2019) study school catchment zones as causal factors in intra-regional mobility and neighborhood segregation in the context of Helsinki, Finland, which differs significantly in political, economic, and cultural contexts. I cite them to contrast a global perspective to my American-centric perspective. Notably, the neighborhood contexts are different in that schools do not have anywhere near the variation in quality that exists here. Though the nordic countries are famed for their egalitarian civic structures, they have their share of xenophobia regarding non-western immigrants. Despite high quality schools uniformly across the region, Bernelius 2019 is able to link urban mobility patterns and segregation to school catchment zones through parent's perception of school quality. Finish parents seek out higher quality schools (determined by the number of native Finns, non-immigrants), up until they have school-aged children, presumably prioritizing stability for the student over their desires to find 'suitable' neighborhood contexts. Similarly, Kauppinen (2022) finds that catchment boundaries are a causal factor in intra-urban residential mobility using regression discontinuity techniques. These findings are made possible in part by the Finns maintaining datasets that are much higher quality than exists in the U.S. and contain data about the entire population as opposed to a sampling.

3 Homelessness dimension

The hostility of municipalities and taxpayers towards the homeless through active and passive policy is violent and something I want to include in my research. The homeless represent the extreme end of poverty, the most deprived among us, the most in need of help, and many people in the U.S. are only a few bad months away from being there themselves.

3.1 Emphasis on residential structures

Galster's emphasis on residences as focal points for neighborhood dimensions leaves the issue of homelessness, of particular concern for Californians, as a major gap in neighborhood conception. Herring (2014) posits a 4-pronged typology of homelessness camps on the west coast of the U.S. that can prove useful for filling this gap. Herring divides camps along dimensions of legality, with the illegal side consisting of contested camps (such as protest-guided tent cities), tolerated camps (those that are not legally sanctioned but tolerated by authorities for pragmatic reasons); while legal camps can be either accomodated (legally sanctioned camps that attempt to provide a link between the unhoused and the potential of getting off the streets) or co-opted (camps that have been effectively taken over by the municipality, usually mirroring the conditionality of service associated with homeless shelters and all the problems therein). This typology contains a great deal of variety even between different camps that fall within the same categorization, and may constitute a continuum in itself - contested camps could cause enough pressure that municipalities relent and accomoadate the campers with assistance in establishing a permament site, as such was the case with Portland's Dignity Village. The variation in camps speaks to the individual spatial contexts of the camps having effects on behaviors and social outcomes - concurrent with Galster's conception. But this typology is concerned with only the visibly unhoused in concentrations passed the threshold required for collaboration amongst the campers. A homelessness dimension comporting with Galster's definition needs to consider the visible but isolated homeless, as well as the far more numerous 'invisible homeless' - those who are managing well enough to couch surf or live in vehicles.

Speer (2016) Articulates a 'right to the city,' using a 'rights' framework similar to right to food, effectively arguing for a more dignified life decoupled from capitalist commodification of housing and ammenities. They highlight sanitation infrastructure and conditioins of the unhoused in Fresno using interviews and visits to encampments to illustrate the dehumanization of the unhoused by municipal policy makers. Much of this article discusses heartbreaking accounts of destruction of makeshift homes and other attempts by the unhoused to find some comfort and bodily autonomy. The unhoused are forced to perform bodily functions in public, including urination, defication, eating, bathing, love-making, in ways that are inherently dehumanizing. Nobody likes to witness these things, nobody likes that these people do them or are forced to do them, but conditions are such that nobody wants to provide (pay for) a solution to

preventing it, so instead it is mobilized to advance arguments and policies that force the unhoused out of public sight.

Both Herring and Speer reference the use of force by municiaplities (police) to remove the unhoused from public spaces, whether an established encampment or an individual using the restroom in a public business.

3.2 Housing market econometrics in municpal homelessness policy

Dewitt (2022)

4 'Big Data'

4.1 Ubiquity

Big Data is a catch-all phrase that has colloquially come to mean the use of massive datasets to guide our decisions and policies. I am interested in aspects of Big Data's impact on a variety of topics, some of which are more theoretical and less quantifiable than the subfields listed earlier. Crampton (2015) defines Big Data as "a matter of technologic practices, epistimologies, and ontologies. This definition captures the essence of Big Data as a practice rather than simply concrete pieces of data. An implication of Big Data that interestes me is that it centers the uninhibited, wanton harvesting of data - pieces of information about humans, essentializing and generalizing them. This serves a variety of purposes, some of which could potentially be beneficial, some of which are immediately nefarious, but all of which represent a major breach of private life that merits investigation.

Batty (1997)

4.2 Marxist perspectives

Burell and Fourcade (2021) consider the topic from an explicitly marxist perspective. They propose an extension of the class divide: The coding elite (which is a good name) as the upper class oppressing and extracting the wealth from the cybertariat (which is a bad name), who comprises a whole swath of digital laborers. Something that is unexplored (or unstated) about this formulation is the processes through which these classes are produced. The authors begin with the notion of almighty code - if you can touch, edit, or read the codes that drive Big Data innovations, you inherently have more potential than those who cannot. This is mostly correct, but increasingly, the cybertariat class can and does touch code, and yet are relegated to cybertarian jobs. I would argue that computer science know-how does not necessairly elevate a person on their own merits. Inter and intra-industry social capital still plays an outsized role in determining if someone will advance in class status. This is a potential avenue for further research. Burell and Fourcade's article is central to me on the subject

due to its thorough review of literature. They briefly describe the development of Sillicon Valley and then investigate several issues brought about by the proliferation of Big Data. For my purposes, I try to organize these into 1) Use of algorithms in civic strucures and 2) use of algorithms in human relations.

4.3 Intersection with urban systems

4.3.1 Public policy digital government

1. Police

   Policing is a sort of venn diagram between several of my study areas. I'm interested in the role of police from both a public policy perspective and a human geography perspective. The police represent a massive expendature by local municipalities, in stark contrast to other services. Police are rightfully criticized for corruption, excessive force, cruelty, racist practices, and the rest. And yet, veneration of police and police culture is not uncommon.

   Broadly, I want to include police abuses as a part of my research. A clear intersection exists with enforcement of municipal policies against the unhoused. There is a basic economic/public policy argument for diverting funds away from police departments and towards place-specific/regional specific policies to combat homelessness would yield better results than the proliferation of police militarization and continued instances of violence, corruption, and abuses that it entails.

   Local police and sherriff are only one factor in the perpetuation of police violence; underappreciated are the roles of the courts, the public officials that represent police interests in local politics, as well as local, state, and federal legislation and executive policies that all determine the logics of these sytems.

   (a) Local

   Laniyonu (2018) performs an example of these mechanisms through the framework of post-industrial policing, operationalizing gentrification in New York City. I include this paper for the purposes of highlighting its methodology. They use Spatial Durbin modeling to show that gentrification can be predicted at a tract level by an increase in policing in surrounding tracts, but a decrease within the tract itself. As well, it should be considered part of the literature on use of force by police; although the macro resolution of policing abstracts the individual actions occuring to push the poor out of gentrifying spaces, it should not be forgotten that these are often violent encounters resulting in bodily harm, trama, or death.

   Richardson (2019) is another important paper because it's a potential avenue between two of my areas: policing and Big Data. Richardson

expands upon the term 'dirty data' to reflect the nature of data production in policing - derrived from corrupt and unlawful practices. Richardson analyzes a number of police jurisdictions that develop predictive policing systems (such as LAPD's Compstat) WHILE they are under a consent decree or under investigation by federal authorities for civil rights violations. The paper details three such cases, wherein the policing systems developed, whose ostentiable purpose is to abate bias in the police department, are on their face corrupt or biased, while also being ineffective at it's goal (usually a tool for cops to replace the percieved mechanism of corruption/abuse).

(b) National

NSA (Snowden)

Crampton (2015)

1. Not police

(a) Local

(some) Municipalities recognize that Big Data has immense potential to improve the quality and timelieness of services, and attempt to adopt technological solutions/improvements to previously analog processes.

Certoma (2020)

(b) National

While I can assume that the federal government pursues Big Data solutions for much the same reasons that municipalities do, I have not yet read enough to provide any specific examples.

4.4 Private enterprise

4.4.1 Advertising

Williams (1961)