1

Spatial Perspective on Stratification

"There is no place like home."
"Location, location, location."
"Wrong side of the tracks."

The above well-worn clichés and idioms reveal a fundamental truth that urbanites intuitively believe: our daily lives are deeply embedded in the man-made physical environment. The ways we work, play, consume, interact, and communicate are shaped by how society and its economy assign opportunities and constraints. Life's possibilities and impossibilities are often confined along geographic contours, and identities are anchored in neighborhoods. Our intertwined position in society and urban space is illustrated by a recently adopted claim that one's zip code is a better predicator of health than genetics.[1] To varying degrees, as documented later in the book, this correlation between status and geographic location is also true for other arenas such as housing, employment, and education. However, the correlation between geography and outcomes is not just a coincidence, but, as we hypothesize, result of a complex causal system. The material world reflects and projects socioeconomic realties and is instrumental in creating the lived experience. By touching a broad range of human activities, the urban landscape, or urbanscape, becomes complicit in the production of socioeconomic injustices along racial and ethnic lines.

Understanding the fragmented urbanscape can provide critical insights into the nature of socioeconomic stratification, which is very much part

[1] See, for example, "Zip code better predictor of health than genetic code": www.hsph.harvard.edu/news/features/zip-code-better-predictor-of-health-than-genetic-code/ [accessed March 29, 2018].

and parcel of the current resurgence of intergroup strife. The rise of the era of Trump is the reassertion of white privilege within a hierarchy that has been disrupted and undermined by global and domestic forces. The growth of economic income and wealth inequality has hit the middle hard, leading to downward mobility within and across generations (Piketty, 2014). Even for those who are able to maintain their material status, there is a palatable sense of precariousness among the working class and semi-professional whites. Trump and the alt-right have successfully redirected that angst away from the top 1 percent and toward people of color.

The resurgence in nativism is seen in the growing number of hate crimes due to race, ethnicity, nationality, and religion (Levin and Reitzel, 2018; Federal Bureau of Investigation (FBI), 2017; FBI, 2016). This has a spatial manifestation which is best illustrated in the emergence of "you don't belong here" YouTube videos that highlight white angst. These videos often end with whites calling the police to impose spatial, racial, or ethnic exclusion. Although much of these visual representations have been posted by minorities pushing back against the rise of overt prejudice by individuals, the mere existence of such events points to a deeper problem of how cities and metropolises have been carved up to reinforce socioeconomic stratification. The Trump-inspired conflicts are, hopefully, temporal phenomena, but the underlying spatial structure of inequality has a longer historical root and is more persistent, one that must be better understood to address spatialized disparities.

This book uses an intensive case study of Los Angeles to examine if and how the spatial structure generates economic inequality along racial and ethnic lines. This allows us to be immersed deeply into the fine empirical details of the construction of group stratification. As we document later, this metropolis is unique, with irreproducible characteristics not representative of other metropolises. For instance, it is the global capital of film production and is home to a disproportionately large Hispanic population. However, Los Angeles shares much in common with other urbanized regions. It is a prototypical form of the modern city, one shaped by the automobile, job polycentricity, and urban sprawl. It is the "paradigmatic, illustration of the essential and generalizable features of late-twentieth-century urbanization" (Scott and Soja, 1996, p. 1). This region is also seen "as the signal case" of contemporary societal fragmentation, revealing how the same processes are unfolding nationally (Bobo et al., 2000, p. 5). Its predictive power of wider trends is due in part to Los Angeles' rise as the modern gateway for immigration, which has driven a remarkable

ethnic transformation unseen since New York City a century ago (Waldinger and Bozorgmehr, 1996, p. 13).

Los Angeles has also suffered from the widespread nativist backlash against immigrants. As the nation's global city on the Pacific Rim, the region has witnessed directly the impacts and consequences of the shifting world order with the emergence of Asia as a major economic and political force (Ong, Bonacich, and Cheng, 1994, p. 30). As a consequence, for leading urban transformation, Los Angeles provides critical insights into how other metropolises are now evolving, and into the nation's racial and ethnic order. Equally important is the fact that the internal spatial structure is in many ways independent of its regional economy, yet it is governed by the same socioeconomic principles that underlie the intra-urban sorting and clustering of people and activities (Storper et al., 2015, p. 231). Los Angeles also suffers from many of the same socioeconomic marginalization that led to urban riots and unrest in the United States (Abu-Lughod, 2007, p. 8 and p. 269). For these reasons, this metropolis has emerged as the new Chicago for urban studies, rapidly matching "the existing corpus of work on Chicago and the other paradigmatic cities of earlier regimes of accumulation and modes of regulation" (Soja and Scott, 1986, p. 249). In other words, Los Angeles is a powerful case study for understanding spatialized racial and ethnic stratification.

This book starts by providing a theoretical, conceptual, and methodological framework, which will be used throughout, beginning here with a brief overview. The concept of "ethnorace" is at the core of the framework. This refers to the four demographic groups widely adopted by academic researchers, policy analysts, government, and the media: whites, African Americans, Asian Americans, and Hispanics. These terms have both ethnic and racial components that are difficult to disentangle. Moreover, the terms are embedded in our daily conversations and are part of the discourse we use to understand and interpret the world. Equally important, these populations are social, cultural, and political constructs that shape how society is economically divided and stratified along purported "color lines."

There is a vast social-science literature on group cleavages and ethnoracial hierarchies, and this book contributes by analyzing the role of geography within these hierarchies. The urban metropolis is our setting. It is the physical stages upon which human interaction and dynamics take place. It is where inter-group disparities occur. Our fundamental question is: does the physical configuration of a metropolis contribute to material disparities?

If the answer is "yes," then we ask: what are the spatial mechanisms, how do they operate, and what are the consequences? We attempt to unravel these questions by narrowing on ethnoracial participation in production, the consumption of goods and services, and wealth building. More concretely, we focus on three arenas where disparities have a significant effect on material outcomes: home ownership, employment status, and the education of young children. We opt to use a case-study approach because it offers greater depth in studying factors and dynamics. We build on existing empirical studies that include both non-spatial or aspatial variables.

We do not take the existence of a spatialized ethnoracial hierarchy as an ontological given, but rather as a plausible hypothesis that should be empirically tested. Our strategy is to contribute to the emerging subfield of stratification economics, which offers a structural explanation to describe ethnoracial inequality. We do so by borrowing concepts and analytical tools from two or more established subfields to address our question. These subfields are institutional and urban economics. Institutional economics studies the impact of social norms and behaviors on markets, and vice versa. This paradigm is appropriate because ethnoracial norms and practices can be conceived as an institution, a modern post-Civil Rights version of the antebellum "peculiar institution of slavery," and a post-Civil War institution of Jim Crowism.[2] The second field we borrow from is urban economics, an expansive field that includes topics such as the provision of public goods, transportation, land use, and other areas important to the economic analysis of cities.[3] This paradigm is also appropriate because the urban spatial structure is determined by market

[2] Jim Crow represented a formal system of racial segregation that dominated the American South from the turn of the nineteenth century to the mid-1960s (Alexander, 2012).

[3] The seminal work on this topic is by Von Thünen (1826, 1966) which lays out the general concept that locational decision making is tied to transportation costs. Urban economics had a surge of interest during the 1960s and 1970s, with new works on how the tradeoff between commute costs and housing costs (via land rents) affects urban structure, density, and the location of different populations (Alonso, 1964; Kain, 1968; Muth, 1969; Beckmann, 1969). A main assumption of these models is that the city is a featureless plain. Obviously, the real world is geographically much more complex than simple conceptual models imply. For example, Los Angeles is both flat and hilly. Nonetheless, the core concepts of the canonical models are still applicable today – physical distance, accessibility, and spatial transaction costs continue to shape the urbanscape. There has been a resurgence of interest in urban economics in more recent decades, covering a much broader set of topics with rich sets of data and methodological tools (Cutler, Glaeser, and Vigdor, 1999; Glaeser, Kahn, and Rappaport, 2008; Henderson, 2014). There is a related literature on the role of agglomeration and innovation as the foundation of cities, but the focus is more on the region as a whole rather than the internal urban structure (Storper, 2013; Scott and Storper, 2015).

forces and shapes the location of people and economic activities through individual and collective choices and actions.

Given our focus, it is useful to define conceptually what is and is not geographic (in terms of affecting societal outcomes). Economic activities occur in the physical world, at a place, location, and distance among agents. We use two key terms to delineate the two mechanisms in these activities that may influence inequality: spatial and aspatial. For our purpose, the term aspatial is where geography is an epiphenomenon with no role in shaping interactions and outcome. For example, the consumption of normal goods such as food and clothing is a function of income level. Income is, therefore, an aspatial factor that explains whether one is able to purchase more food and clothing. Another example is that employment earnings are a function of human capital, as measured by formal education and on-the-job learning. That is, the physical world is merely a theatrical stage, any stage, upon which activities play out and has no bearing on the outcomes. In our theatrical analogy, the play's focus is on the actors and their interactions and we can understand and accept these as aspatial economic axioms.

At the same time, geographic features can influence processes and material outcomes. We use the term spatial to capture elements of the physical world that conceptually affect the way markets function and how they are organized, modify transactions, and shape results. The urban spatial structure is a character in the play that constrains or enables the actions and capability of others, and is not merely a backdrop in our theoretical analogy. Whether geographic features play a minor or more prominent role is an empirical question. How and how much spatiality matters are the questions at the heart of this book.

While our approach is empirically objective, we recognize the influence of our personal subjectivity and normative beliefs.[4] The selection of topics and questions reflects our personal histories. These histories not only shape our world views but also help us prioritize what societal issues are worthy of addressing. Both of us come from poor communities of color (Latino, Asian, and African American), work with advocacy groups, and pursue academic studies to find ways to learn instrumental knowledge for social

[4] Here, we are speaking about our own values and priorities, and not about normative and positive economics. Our own conceptual position on the latter is that the division between the objective and subjective is often artificial. In fact, people's beliefs can affect actions and behavior, and thus have impacts on material outcomes. At the same time, the material world shapes norms by imposing constraints and creating opportunities. This interactive perspective is consistent with the institutional paradigm within economics.

change. However, we operate on the principle that after making our subjective choices of topics and questions, it is ethical to adhere to standard practices of empirical analyses; we accept findings regardless if they confirm or reject our *a priori* assumptions. In the end, we believe that evidence-based findings can inform social agents to formulate more effective strategies for positive change. What is also evident in this paragraph is that we hold a strong normative position, a belief that existing ethnoracial inequality is morally unacceptable. We understand that there are acceptable differences among groups, so long as those differences are a product of choice and embody cultural diversity of preferences. What is unacceptable to us are disparities manufactured by unfair practices and processes.

The rest of this chapter unpacks some of the dense concepts and terms used in the above paragraphs. We acknowledge that other scholars have legitimate alternative definitions. Our goal is not to debate semantics, but instead to articulate our building blocks. We start with key elements of the urban spatial structure and ethnorace. We then discuss our research design and method, and end the chapter with the organization of the remaining parts of the book.

ELEMENTS OF THE URBAN SPATIAL STRUCTURE

Here, we conceptualize three elements of the spatial structure: places, as a collection of people and economic activities, the relative location of these activities, and the physical transportation networks that connect places. Place, relative location, and networks are words we often use without giving much thought to their meaning. The following briefly defines these three key elements. There are obviously important social, cultural, and psychological[5] elements to these concepts that influence material outcomes. However, these play a secondary role within our conceptual and theoretical framework.

Place

We borrow and adapt many of the concepts used to describe social groups and apply these to our conceptualization of place.[6] We consider places as

[5] Psychological elements include our personal spatial cognition, knowledge acquisition, and perception and the cognitive maps we personally create to about the work and its events and processes (Golledge, 2001, 1105–11; Montello, 2001, 14771–5).

[6] We borrow elements from the following authors in their description of social and ethnic groups. However, it is difficult to attribute each of these concepts solely to one author.

bounded subareas or territories within a region that contain a collection of people and economic activities. A place may have either a hard, identifiable physical or political boundary, or a fuzzy boundary that makes it difficult to identify where a place starts and ends. These borders may shift over time and may vary in scale at different times. Boundaries can be difficult to cross, making them permeable, semi-permeable, or impermeable. For instance, a voting precinct has an impermeable but invisible boundary; and you can only have a say in the political decision making of this place if you reside within its boundaries. Places may also be embedded or nested within each other. For instance, neighborhoods are nested within cities, which are nested in counties that are embedded in states.

A common place in the urban fabric is the residential neighborhood. In empirical research, the neighborhood is usually defined by a census tract. A tract is census geography used for the presentation of statistical data. It is assumed to have a relative stable population size and boundary to facilitate statistical comparisons from census to census. For more on the census tract, see Statistical Appendix 1.2. While neighborhoods typically contain people of similar demographic, economic, and social characteristics, sharing characteristics does not necessarily create a cohesive community (Knox and Pinch, 2010). For instance, the level, nature, and intensity of interaction between residents may only be superficial and not akin to that of a close-knit community.[7] A parallel to residential neighborhood for economic activity are industrial places and economic districts.

Our conceptual framework not only considers the spatial nature of places, but also the aspatial characteristics and functions. The identity of a place may merely be the composition of its collection – the characteristics of the individuals and activities in them that are determined aspatially. For instance, a place may be characterized or identified (statistically or otherwise) as poor because it has a high concentration of poor people. However, the economic status may not be determined by the physical geography or location of the actual place. Alternatively, we could say that place is merely an epiphenomenon.

Some of the concepts include ethnicity without groups (Brubaker, 2004), ethnic groups and boundaries (Barth, 1969), characteristics of boundaries (Alba and Nee, 2009), boundaries in the social sciences such as those that are symbolic and which forge social identity (Lamont and Molnár, 2002), ethnic boundary making (Wimmer, 2008), and other factors relevant to boundary making (Pebley and Sastry, 2017).

[7] This feeds into the stereotype of city-dwellers as indifferent towards others. For a discussion from a human geography perspective of urban neighborhoods see Massey, Allen, and Pile (1999), as well as the seminal work neighborhood from a sociological perspective summarized in Keller (1968).

Places, however, are more than the sum of their composition because places have different functions and can be acted on by internal and external actors that encourage either virtuous or vicious cycles of reciprocal impacts. Two primary spatial functions are units of consumption and production. An illustration of units of production are agglomeration economies like Silicon Valley in the San Francisco Bay Area and Hollywood in Los Angeles. Through the co-location of similar or complementary activities, agglomerations enhance firm efficiency through increased proximity.[8] Proximity lowers transaction costs, facilitates face-to-face communication, and enhances interaction between firms. Increased proximity engenders trusts and information sharing, and promotes the generation of new knowledge and innovation that spill over the extent of a place. In other words, a virtuous cycle of positive reciprocity encourages agglomeration economies.

Territorial markets are an example of a spatial unit of consumption.[9] Firms divide urban space into places of varying size to meet the conditions for local demand – the number of buyers, sellers, and transactions – and as a form of competition. Therefore, the geographical scale of a territorial market is driven by the willingness of consumers to pay and the ability of a firm to make a profit. Markets can be thin, where there are few buyers and sellers. In thin markets, the decision of a firm to stay and do business is dichotomous (they either stay or go) since supply cannot be divided into small pieces (e.g., the presence of big-box retailing). Prices in these territories can vary. This can be a form of spatial price discrimination, such as insurance redlining, which is discussed in Chapter 3.[10]

Place is acted on by internal and external agents. Firms dividing space is an example of the impact of internal agents. External agents include government and civil society. Government influence places through the delivery of goods and services and public investments (or the denial of these). For instance, the allocation of resources such as education, policing,

[8] There is a vast literature on urban agglomerations, which includes competing theoretical and empirical models, and a multitude of definitions in different scholarly circles. For an introductory discussion see the essay by Johansson and Quigley (2003). Also see Scott and Storper (2015).

[9] For discussions on this type of market structure, see Hotelling (1929); Lösch (1954); Mills and Lav (1964); Capozza and Van Order (1978).

[10] The term "price discrimination" is defined as the firm's ability to sell the same product at different prices to different buyers to capture consumer surplus. This includes selling at a different price when buying different quantities, or pricing based on different consumer groups or submarkets. instance, higher ticket prices to Disneyland for adults than children or lower prices for Southern California residents than non-residents. The profit-motivated practice can also be based on ethnoracial groups or other sociodemographic characteristics such as higher auto insurance costs for men than women.

or infrastructure improvements that produce localized (bounded) public goods. Community development block grants (CDBG) are an example of government acting on place "to improve the lives of their low- and moderate-income residents through the creation and expansion of community and economic development opportunities" (California Department of Housing and Community Development, n.d.).

Civil society is another outside agent that exerts tremendous influence on place. Civil society includes interactions between the private sphere (individuals, families, and communities) and institutions from government, business, and religious bodies for the purpose of promoting civil values.[11] Civil society is a critical arena for place-based philanthropic activity and funding such as the California Endowment's $10 billion "Building Healthy Communities" strategy to work on a local scale to create a broad, statewide impact (The California Endowment, n.d.).

Finally, places are also arenas for collective action. Residents can act together to create localized benefits or generate boundaries. This collective action can be understood through the "communities of limited liability" framework[12] in which residents or stakeholders of a neighborhood come together to further a cause. An example of this is the creation of small, affluent school districts. We discuss this topic further in Chapter 5.

Relative Locations

Within urban space, places and economic activities are located and have a set of geographical coordinates. These locations are not static but are continuously changing and are not randomly distributed. The history and trajectory of the urban landscape influence the location. But what is

[11] In the United States, society is typically divided into three sectors for the production of goods and services: government or the state; private markets or businesses; and the third sector of nongovernment, nonprofit, religious, and other civil society organizations (CSOs). For a review of the literature on American philanthropy see Acs (2013) and Anheier and Salamon (2006).

[12] The concept was first proposed by Janowitz (1967) to draw attention on the persistence of communities in the face of modern society, emphasizing that intentional, voluntary, and in particular, partial and differential involvement in social life all contribute to the maintenance of a community. The concept was expanded by Suttles (1972) to include a critique on creating positive social change in the face of external forces to preserve place through activities such as demarcating boundaries and naming a place. For a more detailed summary on the evolution of this concept see Kasinitz (1995).

more important is the juxtaposition and degree of proximity, or separation, of the location of these places and activities relative to each other. As such, we define relative location as the geographic distribution and patterns of places, populations, and economic activities within the varied city landscape. Inherent in this definition is the notion that locations are specialized, each with distinct economic functions and activities.

As previously mentioned, two general categories of places are residential neighborhoods and industrial places. Two key questions arise from this framework: how and why are places located? Where places locate has economic meaning. There are variations in price and cost of urban space based on the accessibility or proximity of a location to desired land uses. As such, specialized places not only create physical propinquity but also remoteness. The same applies to functions and activities embedded in these places. Relative location in this instance becomes a factor in production, consumption, and exchange.

Networks

Networks are a powerful economic factor that tie people, places, and activities together. A network acts as a bridging capital that connects residents and businesses to resources outside of a given place. Networks can be physical or invisible to the naked eye, such as social networks. However, for the purposes of our analytical framework, we define networks as the physical channels through which objects, activities, and information flow from one place to another. Further, we are interested in the ability of urban dwellers to utilize them. Physical urban networks are of human construction for human benefit. Examples include communication networks that facilitate human interaction; for instance, telephone lines and broadband networks. Utility networks are another example. Water infrastructure, gas pipelines, and the electrical grid are other examples of networks that are integral to cities. Within the context of the urban spatial structure, transportation networks are arguably the most important physical network.

Transportation networks have shaped the economic, social, and physical landscape of modern cities. These networks have different hierarchical layers with different functions. They include freeways designed for speedy, uninterrupted travel for high volume traffic. In the hierarchy of roads, major arterial roads and highways follow freeways. Arterial roads are designed to distribute traffic to freeways and local roads. Local roads are at the bottom of the hierarchy with the lowest speed limit and volume of