

THE UNIVERSITY OF CHICAGO

# **Los Angeles Strip Malls and their Cultural Character**

By

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## ABSTRACT

*Small strip malls are abundant in the United States: they make up the majority of the country's shopping centers (International Council of Shopping Centers (ICSC), 2017). Hart (1982) appraised the strip mall as "a place where every American can feel at home, no matter where he or she happens to be, because it is so familiar, so standardized, so universal—and so placeless!" (p. 219). For their significance in the American psyche, they remain broadly under-studied in academic literature, whether because of researchers' fascination with forms with more grandeur and aesthetic appeal, or their plain negligence.*

*The following research will spotlight the strip mall and its effects on communities that surround it. It will have a geographic focus in Los Angeles County, reputedly and historically the capital of car-centered, multi-centric strip mall-dom. First, it will develop a functional definition of the strip mall as it manifests in Los Angeles.<sup>1</sup> Then, it will incorporate applicable datasets to produce an exhaustive GIS catalog and typology of strip malls in Los Angeles. It is expected that strip malls will exhibit considerable diversity in their function and structure, but that the term "strip mall" will still define a significant and meaningful type of Angeleno built form.*

*Using the identified strip malls, the paper will elaborate the contributions of strip malls to the urban fabric in different parts of Los Angeles. Linovski (2012) suggests that strip malls tend to have low rent costs, making them accessible retail space for small businesses, in particular first-generation immigrants looking to found commercial enterprises. Ethnicity, language, and class will be among the primary factors considered in conversation with reliance on strip malls for lifestyle and community needs. While strip malls are not intrinsically cultural or ethnic, their form and economic characteristics have been appropriated in a way that imbues identity into them.*

*Finally, these results will inform quantitatively-backed suggestions in light of strip mall redevelopment pressures. In particular, it will respond to California's 2022 bill AB2011, which fast-tracks developments that upzone strip malls into multi-story affordable housing units instead. The resulting policy proposals will balance the eminent benefits of new dense, affordable housing with the potential harm of eliminating existing strip malls and the communities that rely on them and suggest which strip malls to protect, which to redevelop, and which to invest into further.*

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<sup>1</sup> A note on terms: the quantitative analysis in this article will center around Los Angeles County. "Los Angeles" will be used variably to refer to the county and the more general metropolitan area, but never the city itself.

## ACKNOWLEDGMENTS

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## INTRODUCTION

### *Prologue*

On October 17, 2023, Fullerton Hills Pet Clinic relocated from 1807 N Euclid Street, Fontana, California to 1144 Rosecrans Avenue, Fontana, California. On its face, this was a minor change in the North Orange County suburb: Dr. Cho's clinic moved less than 500 feet down to the street, so short a distance that a moving van may not even have been necessary. However, this represented the culmination of something much larger. Fullerton Hills Pet Clinic had been the last remaining tenant of Fontana's Sunrise Village Plaza strip mall. Immediately after the relocation, green fences went up around Sunrise Village Plaza, welcoming in construction vehicles and a new, residential realization of the plot (Greene, 2023). For years, the strip mall's tenants had been fighting alongside Fontana community members to prevent its demolition and redevelopment into a new 164-unit housing community. They argued that Sunrise Village Plaza was their only nearby option for a shopping center, and that its demolition would make them travel further to get the services they needed. They also argued that it provided a gathering space for the large Korean-American community in Fontana, many of whom shopped and owned businesses there, circulating money within the community and promoting economic self-sufficiency. Fullerton Hills Pet Clinic, which had stood in the strip mall for 43 years, represented one part of what they called a vibrant community (Save Sunrise Village Team, 2022). The organizers collected signatures, protested at city hall, and publicized to local media outlets, but Fontana City Council voted to approve the development, and thus the strip mall's demolition. The new housing development, called "The Pines" and engineered by Shopoff realty,<sup>2</sup> would help the city meet its housing goals at the expense of a strip mall. The Pines

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<sup>2</sup> Who would later be implicated in a real estate corruption scandal, using donations to persuade city council members to approve their projects (Elattar, 2023).

represented a larger push to beautify, densify, and urbanize strip malls, more often than not by destroying them, rather than building them up (Linovski 2012). To contextualize Sunrise Village's shuttering, though, it is crucial to first understand the history of the strip mall in Los Angeles.

### *Brief History*

While this paper will later go on to define the Los Angeles strip mall more rigorously in its attempt to catalog them, there are empirical benchmarks that can help set a baseline approximate. Even if different people conceptualize them differently, strip malls have a number of widely agreed-upon features. At their most basic, strip malls are small-to-mid-sized shopping centers on centrally-owned land, with business arranged side-by-side—in a strip—next to a parking lot. With small parcel sizes and relatively affordable retail space, they represent a more locally-oriented, small-business-occupied alternative to the more-celebrated regional mall (Linovski, 2012). Inseparable from the strip mall is its parking lot, which separates set-back businesses from the street, providing preferred access for cars driving by. Visually, strip malls tend to be understated and “plain-modern,” with the notable exception of a large, gaudy street-facing sign luring in drivers (Manning, 2009, p. 42). Altogether, the strip mall as a local retail center exists to attract and serve the automobile and its user.

If the strip mall developed around the automobile, then there is no more fitting city for it to call home than Los Angeles, the city that the celebrated architectural critic Reyner Banham described using the maxim “mobility outweighs monumentality” (1971, p. 5). The strip mall, in its street-orientation and ahistorical architecture, is built for the mobile and the practical, not for the static and the saccharine. Los Angeles is key to the history of the strip mall as the site of its

greatest proliferation and cultural footprint. Strip malls had existed, scattered throughout the country—including in Los Angeles—since the 1920s. Developers experimented with “drive-in markets” and “shopping clusters,” some of which remain functioning strip malls today. However, it was starting in the 1970s that Los Angeles truly established itself as a city of strip malls. When oil shocks caused many gas stations to close down, strip malls began spreading rapidly throughout the Los Angeles area in their stead, and then beyond them (Bradley, 2023). So popular did strip malls become in LA that they assumed control over the Angeleno conception of the shopping center and spawned their own typologies. The 1973 opening of the nation’s first “mini-mall”<sup>3</sup> in Panorama City is often cited as a seminal example of Los Angeles’ eminent strip mall culture (Meares, 2022). Taking hold outside of the traditional Downtown commercial center, strip malls were profitable, well trafficked, and full of opportunity (Loukaitou-Sideris, 1997). They existed as neighborhood centers in a decentralized world. It was also in the 1970s that immigrants began arriving *en masse* in Los Angeles from the Middle East, Asia, and Latin America, due to the passage of the 1965 Hart-Celler Immigration and Nationality Act, which eliminated the national quota system and significantly eased barriers for entry. Looking to avoid racist hiring practices, start their own businesses, build their communities in the US, these immigrants spearheaded a “hyperentrepreneurial influx” that made its way into strip malls across Los Angeles throughout the 1980s and 1990s (Light & Roach, *Ethnic Los Angeles*, 1996, p. 195).

In the face of this strip mall boom, a reactionary, aesthetic panic began to spread among LA residents and local governments. Many saw the strip malls as unsightly, disreputable, blighted, and a “homogenous blob of ugly sign clutter” (MacMahon, 2011, p. 3). Los Angeles was derided as the face of the strip mall-oriented city (Mejía, 2024). By the early 1990s, Los

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<sup>3</sup> A specific type of strip mall, a two-story building often on a corner of two heavily-trafficked streets and parking below ground.

Angeles city had begun enforcing the slow-development Proposition U to halt strip mall development almost entirely (Meares, 2022). Today, language remains in the LA city zoning code prohibiting strip malls that would “create or add to a detrimental concentration,” reflecting these fears of strip mall overabundance (City of Los Angeles, 12:24-27-b). This is the environment in which modern efforts toward strip mall redevelopment have entered: public aesthetic condemnation, widespread ethnic integration into the strip mall, not to mention a severe housing crisis.

### *Problem Statement and Approach*

This research works toward answering three primary questions: *Where are strip malls in Los Angeles County?*, *What are the qualities of Los Angeles County strip malls and the communities that surround them?*, and *To what extent should we redevelop strip malls?* Given the abundance of strip malls across America, and their quality as a harbinger of car-centric living separate from the central city, the academic literature discussing them is surprisingly sparse. This is especially true for strip mall literature concerning Los Angeles, considering their centrality to the recent history of the city. This has left quantitative urban research on strip malls wanting in several ways. One of these is the lack of a uniformly held, objective, broadly applicable definition of a strip mall. While terms like “strip mall” do tend to have fuzzy, boundary-spanning realizations, different writers and researchers have discussed strip malls in remarkably different capacities. Relatedly, another of these shortcomings is the lack of an exhaustive, public GIS catalog and dataset of strip malls across Los Angeles, much less the US as a whole.

There do exist exhaustive analyses of strip malls in Los Angeles, but unfortunately, the data they use is private and not accessible. The most contemporary example as of the writing of

this research is a study done by a group called Urban Footprint on the impact of California law AB2011, which clears the way for greater redevelopment of strip malls (DiStefano & Calthorpe, 2022). In that study, there are important and impressive conclusions on the potential cumulative effects of AB2011 in terms of affordable housing generated, vehicle miles traveled, and energy use. However, Urban Footprint's analysis pays little attention to the social value of existing strip malls might exercise in terms of community formation. Instead, it outlines an overwhelmingly positive view of massive redevelopment, which could be expected from the same urban theorist, Peter Calthorpe, who lobbied for the law in the first place (Leslie, 2024). Similar speculative research from across the country also often extolls the benefits of a post-redevelopment future for strip malls, but rarely takes the perspective of what would be lost as strip malls are destroyed or altered (MAPC, 2022; Heffernan, 2023; Mouisset, 2023). While these analyses provide useful quantifications for the potential scope of strip mall redevelopment policy, they do not look critically behind its intentions and at the strip malls it affects.

Conversely, the sparse prior academic research that *does* prioritize the cultural implications of strip malls lacks a quantitative component that takes into account the whole county. Instead, these papers have surveyed selected strip mall businesses and interviewed their owners. (Loukaitou-Sideris, 2002; Linovski, 2012; Liu, 2013). This work is incredibly valuable for understanding people's personal perspectives as a baseline, but it is neither quantitative nor exhaustive. As a result, they can be criticized for cherry-picking ideal case studies of ethnic strip malls. Lawmakers and developers may not be as receptive to these incomplete samples of the thousands of strip malls in Los Angeles County.

Unlike that type of research, and to form practical, evidence-based solutions, this paper will pursue an exhaustive understanding of Los Angeles strip malls. And, unlike Urban

Footprint's and others' research, this paper will take a culturally-sensitive approach toward understanding the nature of existing Los Angeles strip malls, and make its resulting GIS data public.<sup>4</sup> At a general level, strip malls deserve much more academic research. But considering California's new anti-strip-mall housing laws, more work is urgently needed to understand strip mall communities and figure out whether or how to protect them. From the forthcoming GIS catalog of Los Angeles strip malls, the strip mall as a whole will be understood via spatial distribution and cluster analysis, demographic regression analysis, and manipulation of its feature classes. What architectural forms and retail types define a strip mall? What sorts of communities tend to rely most on strip mall retail? Which communities might AB2011 be right for, and which communities might they harm? It is important to recognize that strip malls fall on a spectrum in their urban merits. While some strip malls are thriving and provide crucial services to communities, others are mostly vacant and have no more cultural value than any given business. Still others are not thriving but might benefit from economic stimulus, greening, or accessibility. As a result, strip mall redevelopment may have a positive impact in many cases, and the new housing may help relieve rent pressures and provide larger tax bases. This research hopes to encompass that diversity.

By using GIS tools to exhaustively catalog LA's strip malls and interpret their cultural significance, this research hopes to introduce a stronger understanding of the strip mall's realization. Then, it aims to bridge a gap in the literature and put the cultural significance and quantitative value of strip malls in communication with each other. Ideally, it will encourage policymakers to respond to the quantitative findings on strip malls, whether that comes in the form of strengthening and expanding redevelopment programs or legislating protections for

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<sup>4</sup> As of the writing of this paper, the dataset is in the process of being published on the Los Angeles County Open Data Portal.

certain strip malls that perform essential cultural and community functions. Beyond that, if prominent New Urbanist Richard Florida is correct, and “strip commercial redevelopment will be the major development feature of the next generation,” then this paper can serve as a historical marker of the extent of Los Angeles strip malls that once were (Florida, 2010, p. 9) . While this paper is focused on the context of Los Angeles, its implications are not confined to the region. Nationwide, housing shortages are necessitating that *some* land be cleared for new residential units. The onus then falls upon strip malls and other traditionally maligned urban forms to be demolished and converted. In 2023, the Biden Administration published an extensive handbook of federal resources to help developers undertake these conversions (White House 2023). The Department of Transportation, Environmental Protection Agency, and Housing and Urban Development all have programs in place that can be used for that intent. The immediate future of strip mall redevelopment in Los Angeles County figures to be a national trend going forward. It is therefore especially crucial that strip malls are analyzed and properly understood.

## METHODS

### *Definitions and Terms*

The first goal of this paper is to create a catalog of strip malls in Los Angeles, a product that is sorely missing from the public datasets available today. Between the ubiquity of strip malls in urban practice and their ubiquity in common parlance, it might be expected that there would be a definition and database of a strip mall. However, no such strict definition exists. Crucial to this catalog will be a data-oriented definition of strip malls—one that aligns with the popular “I know it when I see it” definition by putting a number of publicly available datasets in

connection with each other. Using geocomputation methods in Python and QGIS, the output will contain features that are strip malls in Los Angeles County.

While the idea of the strip mall is generally understood by Angelenos, the buildings described as “strip malls” are quite diverse. The classic form is a one-story strip of businesses, often arranged in an “L” shape around a street-facing parking lot. Another common form, though, has two-stories with overground *and* underground parking; this type of strip mall, called a “mini-mall,” has its roots in the 1970s in Los Angeles. Still others are “I” shaped, with the parking lot taking up the building’s setback, or “U” shaped boundaries of commercial space encircling the parking lot. The Los Angeles City zoning code seems to make mention of the strip mall as a typology, albeit obliquely. The zoning code outlines the classifications of “mini shopping center” and “commercial corner development” (City of Los Angeles, 2024, 2.12.22.A.23). Mini shopping centers are commercially-centered plots that are less than 65,000 feet in area, 3 or fewer stories, have multiple commercial units with a common parking lot, and are neither gas stations nor office buildings. Commercial corner developments are similar: commercial- or mixed-zoned developments in relatively low-rise height districts on major street corners, also featuring shared parking lots (City of Los Angeles, 2024, 2.12.22.A.23). The following research will encompass all realizations of this vital, ubiquitous urban form by taking stock of their commonalities and approximating what Angelenos mean when they say “strip mall.” With the variety of forms that strip malls take, it is perhaps helpful to start defining them by excluding other types of retail centers. In the recursive process of finding an adequate quantitative definition for strip malls, the three most similar, confusable forms were main street retail, neighborhood centers/power centers, and service stations. None of these is to be considered as strip mall space.



Like strip malls, main street retail comprises rows of street-facing, consumer-oriented businesses along larger streets. Contrary to strip malls, however, main street retail is divided into separate buildings that are owned and operated separately from each other. Moreover, the storefronts of main street retail are directly on the street, not set back by parking lots (Talen and Jeong 2018). Thus, finding a way to map businesses onto the nearest building should produce at most one business per main street retail building, while it will produce multiple businesses per strip mall. In addition, selecting businesses adjacent to a parking lot should exclude most main street retail and further help define the parking lot setback that typifies strip malls.

Like strip malls, neighborhood centers are oriented toward local customers (within 3 miles) and built around a central parking lot (ICSC, 2017). However, they have larger parking lots, larger sales volumes, and less small business. And, crucially, neighborhood centers are always anchored by a larger business, often a grocery store or drug store. A parking lot size limit may help separate strip malls from neighborhood centers: neighborhood centers tend to have many rows of parking for each store, whereas strip malls only tend to have one or two. The buildings of neighborhood centers also tend to be larger than those of strip malls: while there is some overlap in practice, strip malls tend to be below 30,000 square feet, whereas neighborhood centers tend to be 30,000 to 125,000 square feet (ICSC 2017). Beyond that, it will be important to carefully select for the *type* of businesses found in a strip mall, not just the presence of any business. This will be done by excluding the largest stores and including only the types of businesses that empirically occur frequently in strip malls. In doing so, the anchor businesses of neighborhood centers will be removed. Power centers are a scaled-up version of the neighborhood center, making them easier to differentiate from the smaller strip malls. They revolve around *multiple* large chain stores, and their lots span hundreds of thousands of square

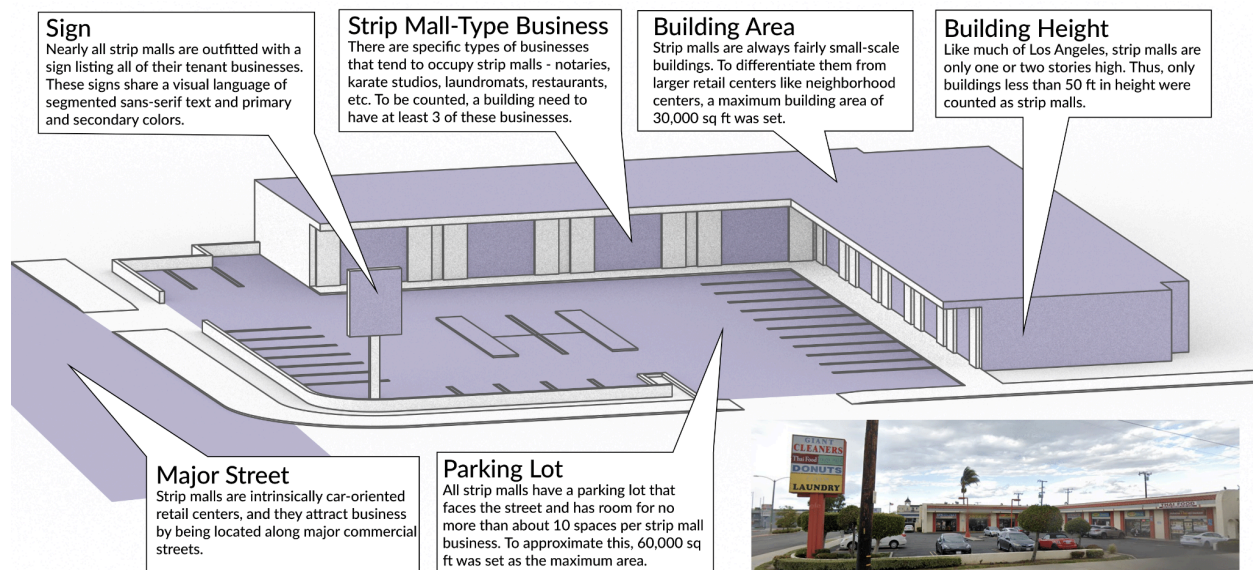
feet in area. In strip malls, neither the parking lot nor the building itself is constructed to accommodate such large tenants. Beyond that, power centers may also be 3 or more stories tall, while strip malls only reach 2 stories at their peak.

Lastly, auto service stations (gas stations, auto repair shops, car washes, etc.) are similar to strip malls because, in many cases, strip malls were built on former service stations. Auto repair shops and small dealerships often occupy the same “L” shape as do strip malls, and are built on parcels with a similar area. In addition, all of these forms necessarily have a commercial parking lot, as their businesses serve cars. While excluding buildings that contain only one or two businesses *can* help differentiate strip malls, it is not foolproof: at many gas stations, an adjoining convenience store and a small shop could make it so that the data show multiple businesses on the same parcel. To exclude these auto service stations, it is especially important to be discerning about which types of businesses can count as “strip mall-type” businesses—namely, not gas stations or car dealerships.

With strip malls differentiated from the rest of these forms, the following specifications for strip malls to be quantified. In all, a building must meet the following criteria to be considered a strip mall:

- A collection of businesses not dependent on a large chain business as an anchor
- A space for these businesses as a building owned by a single owner and on a single parcel
- A relatively small, one- or two-story building beside a relatively small parking lot that faces a major street
- A space small enough to serve primarily the local neighborhood
- Not an auto service station or car dealership

*Figure 1*, based on a real-world strip mall at 21950 S Avalon Blvd. in the South Bay city of Carson, summarizes these specifications. The street-facing sign, while ubiquitous to strip malls' visual language, was not included in this analysis, as it was not available in data across Los Angeles County, and was too small to be differentiated via satellite image analysis.



*Figure 1: Axonometric View of a Standard Strip Mall*

### *Strip Mall Identification*

With a rough qualitative definition of the strip mall outlined, the next step is to convert that into a quantitative workflow that can identify LA County buildings that adhere to that definition. For this step, Talen and Jeong (2018) serves as an inspiration in its attempt to define another loosely understood urban concept with site-suitability analysis-adjacent analysis, the “main street” retail mentioned contrasted with strip malls above. In that paper, the authors analyzed what they theorized to be a struggling American main street retail scene, focusing on Chicago. They agreed *that* the main street was struggling, but found that urbanists’ “normative idealism” toward the main street had occluded any extensive quantitative analysis of the form.

To quantitatively determine how much a place adhered to the “main street principles,” they scored Chicago blocks on eight factors that they deemed essential to main streets. These factors were a mix of extracts from business data, built form, and local characteristics. By combining all of these factors, they were able to create a catalog of main street retail blocks in Chicago. This paper seeks to do a very similar thing, but for Los Angeles strip malls instead: it will bring a quantitative lens to a broadly-used term with timely urbanist implications, then incorporate many different datasets to define and catalog them. This paper will go beyond just the enumeration of strip malls, though: it will then incorporate socioeconomic data to attempt to understand strip malls’ importance in community. After an extensive search for fitting datasets that had sufficiently precise and expansive data coverage, the datasets in Table 2 were obtained and used.

**Table 1: Datasets used for Strip Mall Identification**

Name	Source	Year	Attributes	Used for
LA County Boundary	<a href="#">LA County Data Portal</a>	2024	-	Subsetting to LA County elements; excluding Santa Catalina and San Clemente Islands, as they had no strip malls and invalid geometry
Listing of Active Businesses	<a href="#">Data Axle Business Solutions</a>	2021	Business name, business owner name, street address, lat/long coordinate, business type (NAICS code), date of licensing, etc.	Finding retail institutions; mapping those businesses to building footprints; subsetting for footprints with corresponding businesses
LA County Parcels	<a href="#">LA County Data Portal/ Assessor’s Office</a>	2023	AIN, shape area	Dissolving by Assessor Identification Number (AIN); joining buildings footprints to parcels to get good join-by-nearest results
LA County Building Footprints	<a href="#">LARIAC/LA County Data Portal</a>	2014	Building ID, building height, elevation above sea level, shape area/perimeter	Dissolving by AIN; creating a baseline for potential strip malls; subsetting for area and height
LA County Parking Lots	<a href="#">LARIAC/LA County Data Portal</a>	2014	Shape area, use category, use type	Finding small-scale commercial parking lots; subsetting for area, joining to building footprints by AIN

LA County Primary and Secondary Streets	<a href="#">OpenStreetMap</a> <a href="#">Overpass API</a>	2014	Street name	Subsetting parking lots to only those abutting a major street
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*Table 1* above summarizes the datasets used for the identification of strip malls. Besides the business datasets, these are all publicly available datasets from Los Angeles County Open Data Portal. The business dataset was collected by a company called Data Axle and accessed through the University of Chicago Library. Because it contained business data from across the United States, it had to be cleaned to include only businesses in LA County with the LA County shapefile.

One significant limitation is that the different datasets come from different years. Several key datasets come from the Los Angeles Region Imagery Acquisition Consortium (LARIAC), an LA County-sponsored satellite imaging group, including building footprints and parking lots. The most recent publicly available LARIAC data is from LARIAC4, collected in 2014. While it would have been possible to use active business data from 2014 to align with the building footprints, there were empirically fairly small differences between 2014 and 2024 building footprints. In addition, only the current (2024) edition of the parcel data was readily accessible. It was decided that the more modern-day findings of more recent business data outweighed the potential downsides of those small differences between footprints and parking lot forms, especially since this analysis is in the context of modern legislation. For the business data, the most recent (2021) version of the data was used.<sup>5</sup>

Because strip malls are buildings, and the final product should be a collection of buildings, the first dataset to manipulate was the countywide building footprints. The raw dataset

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<sup>5</sup> Using 2021 data had the added benefit of being right before the enactment of redevelopment laws AB2011 and SB6. As a result, it serves as a snapshot of the strip malls prior to a predicted increase in their redevelopment.

contained some buildings that could not house businesses: courtyards and small sheds. So, all buildings without a building ID number (roughly corresponding to courtyards) or less than 1,000 square feet in area were removed, bringing the number of buildings down from to 2,125,053. Then, buildings were joined by their Assessor Identification Number (AIN). This crucial ID variable is used by the LA County Assessor's Office to standardize plots of land that are under the same ownership and deed. AIN was the key to linking physically separate buildings that are owned together. This is sometimes the case for strip malls where the "L" formation actually consists of two separate buildings, or where there are several buildings in a "cluster." When dissolved, the new area of the dissolved entity was calculated as the sum of its component buildings, while the height was calculated as the maximum of the buildings. There were a total of 1,782,196 dissolved buildings.

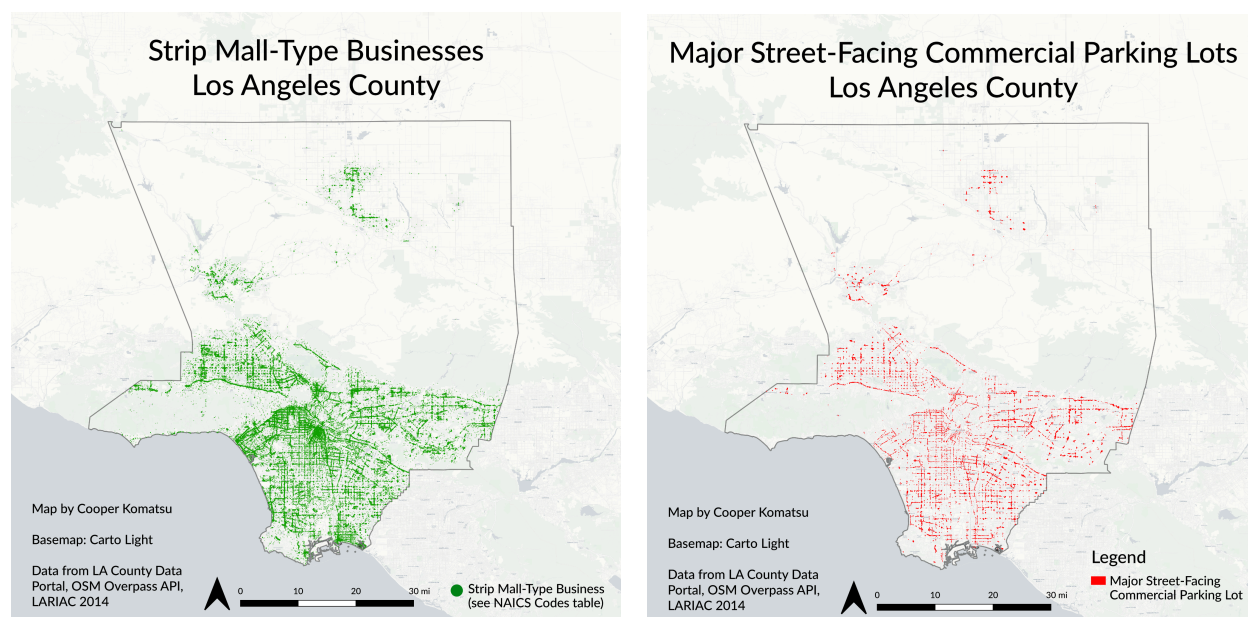
The next step was to focus on the businesses that make up strip malls—perhaps trivially, buildings must have businesses in them to be strip malls. It is just not any collection of business that makes up a strip mall, though: large anchor-dominated power centers, gas stations with convenience stores, and warehouses containing industrial operations would be counted if all businesses were counted. While this paper has offered the label of "strip mall-type" as a way to differentiate strip malls from other retail centers, it needs a specific definition to be operationalized. To solve that problem, the 2017 North American Industry Classification System (NAICS) was used to code businesses by type. To learn which classifications were "strip mall-type," a random sample of major streets throughout Los Angeles County was produced from OSM's Overpass API. Then, these streets were observed in Google Street View, and when a strip mall<sup>6</sup> was observed, the NAICS categories of its component businesses were tallied. These tallies, combined with the author's priors about LA strip malls, contributed to a list of NAICS

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<sup>6</sup> Strip malls were found as subjectively understood by the author, but in line with the standards set forth earlier.

codes for possible “strip mall-type” businesses. *Table 2* displays the types and codes of businesses deemed to be exemplary of strip malls. The businesses dataset was then subsetted to just those strip mall-type businesses, which comprised 146,608 of 567,810 Los Angeles county businesses (25.8%), which are mapped in *Figure 2*.

<b>Table 2: NAICS Codes Used as “Strip Mall-Type” Businesses</b>		
<b>NAICS Code</b>	<b>Name</b>	<b>Notes/Description</b>
323	Print shops	Poster printing is especially common in LA strip malls
44-45	Retail trade	Car dealerships (4411) and gas stations (447) excluded
517	Telecom	Wireless service providers often set up shop in strip malls
5222	Non-depository credit	Services like check cashing; not banks
52231	Loan brokers	
5242	Insurance	
5322	Consumer goods retail	
54112	Notaries	Classic strip mall businesses
54192-54194	Certain services (Photography, Translation, Veterinary)	
56151-56152	Travel agencies and tour operators	Can be especially important for first- and second-generation Americans
56172	Cleaners	
61162	Sports instruction	Taekwondo, karate, and other martial arts schools are particularly common
611691-611692	Tutoring and driving schools	
6212	Dentist's offices	Common types of doctors in strip malls—often private practice and children’s dentists
62131	Chiropractor's offices	
7224-25	Food and drink establishments	Restaurants and bars can be especially important as social spaces for communities to gather
8112	Electronics repair	
8114	Personal and household goods repair	
8121	Personal care services	Spas, massage parlors, barber shops
8123	Laundry	Includes dry cleaners
81292	Photofinishing	



*Figure 2: Strip Mall-Type Businesses in Los Angeles County*

*Figure 3: Major Street-Facing Commercial Parking Lots in Los Angeles County*

The next goal was to map these selected strip mall-type businesses onto the buildings they were housed in. Unfortunately, the geocoding of building addresses was imperfect at best, with many businesses mapping to the building's parking lot or even the middle of the street, rather than within the building footprint. As such, the dissolved building attributes were joined by AIN to the corresponding set of dissolved assessors' parcels. Similarly to buildings, multiple parcels under the same deed could be grouped into one jointly owned unit. Since they captured parking lots and yards, these parcels provided a much better geometry to capture business location, and the strip mall-type businesses were joined to the nearest dissolved parcel. If there was no parcel within 70 feet of the business, that building was discarded.<sup>7</sup> Then, the dataset was grouped and counted by the AIN values, and the resultant column was joined back onto the

<sup>7</sup> 70 feet is around half the width of the widest street in Los Angeles (San Vicente Blvd), and thus seemed like a good estimate for the largest possible offset between a geocoded business and its parcel.



building footprints dataset to get a count of the number of businesses that were nearest that building. A limitation of using NAICS codes was that a significant number (15.3%) of businesses were not coded to an NAICS value at all, and instead classified as “other businesses.” These businesses were not included among strip mall-type businesses, as businesses overall were more likely to be non-strip mall-type. Furthermore, only registered businesses are contained in the business records; informal business is not included in the commercial output of the strip mall. This may be especially important for strip malls servicing communities with many undocumented immigrants. Undocumented people cannot work at licensed businesses or found S corporations, so some businesses may operate unlicensed. These two factors mean that, in many cases, the number of strip mall-type businesses in a strip mall is an undercount. Because of this undercounting, the threshold for number of strip mall-type businesses was set relatively low, at three businesses.<sup>8</sup> This brought the number of buildings down over 100-fold, from 1,782,196 to 11,460.

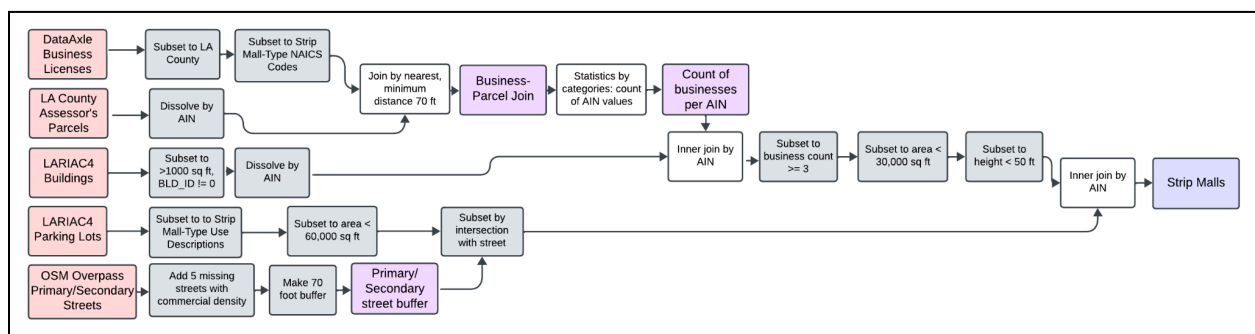
Then, these dissolved buildings were selected for only those that were sufficiently small, in order to eliminate the larger neighborhood centers, power centers, and big box malls, as well as high-rise office buildings with many professional offices. A compromise between standards from the International Council of Shopping Centers and the Los Angeles Zoning Code determined that only buildings less than 50 feet in height and 30,000 feet in area could be considered as strip malls (ICSC 2017, City of Los Angeles 2024). This brought the number of buildings under consideration down to 8,514.

Lastly, the buildings were selected for those with a fitting parking lot. Parking lots are essential elements of strip malls as forms oriented to advertise to people driving on the main

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<sup>8</sup> If buildings with only two businesses were included, the dataset started to encounter many false positives. Hence, the next lowest option was a minimum of three businesses.

streets and provide parking for those drivers. The LARIAC parking lots dataset has a *UseDescrip* attribute that describes the type of parking lot each feature is. While none of the use descriptions is a direct analog to strip mall parking lots, empirical testing in QGIS and Google Maps was used to generate four applicable values for parking lot use descriptions that *could* be for strip malls.<sup>9</sup> A subset was used to find sufficiently small (<50,000 sq ft, to exclude parking lots of major malls) parking lots with those use descriptions. Next, the parking lots were further subsetted for those that were within a 70-foot buffer of the centerline of a “primary” or “secondary” street, as defined by OpenStreetMap.<sup>10</sup> The parking lots that passed all of these tests are mapped in *Figure 3*. Finally, the buildings within 5 meters of such parking lots were selected. The parking lot criterion removed half of the remaining strip mall candidates. Through all of this subsetting, 2,779 buildings remained. Plotted in QGIS and cross-referenced with Google Street View, this appeared to be a fairly robust and complete accounting of the strip malls in Los Angeles. *Figure 4* illustrates the workflow to isolate the strip malls, while *Table 3* summarizes the amount of buildings meeting given criteria at each step.



*Figure 4: Strip Mall Identification Workflow Diagram*

<sup>9</sup> "Stores," "Store Combination," "Restaurants, Cocktail Lounges," and "Shopping Centers (Neighborhood, community)" were the four parking lot use descriptions.

<sup>10</sup> Again, the 70-foot buffer corresponds with the maximum width of LA streets.

**Table 3: Number of Buildings Remaining After Each Operation**

<b>Criterion/Operation</b>	<b>% of Remaining Buildings Meeting Criterion</b>	<b># of Buildings Remaining</b>
-	100%	3,082,406
Select buildings > 1000 feet and not a courtyard	68.9%	2,125,053
Dissolve buildings	83.9%	1,782,196
Select buildings with at least 3 strip mall-type businesses in them	0.6%	11,460
Select buildings < 30,000 feet in area	79.8%	9,143
Select buildings < 50 feet tall	91.9%	8,405
Select buildings intersecting with a 5-meter buffer of applicable street-facing parking lots < 60,000 feet in area	33.1%	2,779

## RESULTS

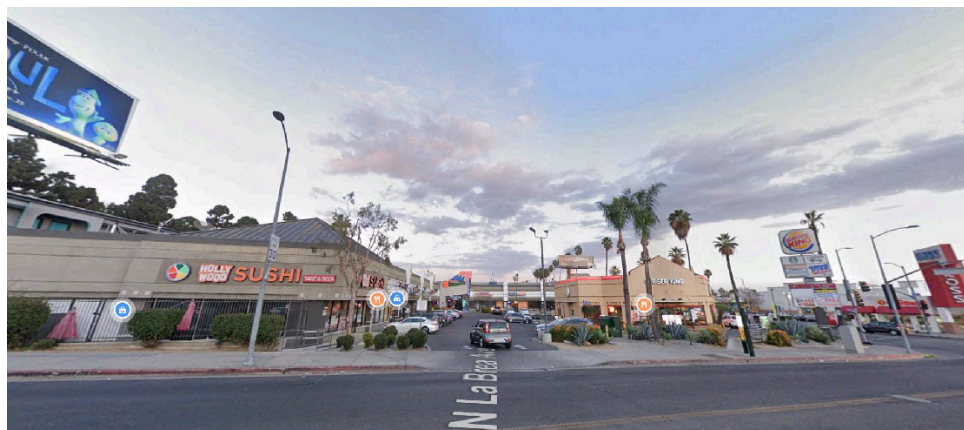
### *Google Street View Gallery of Strip Malls Generated*



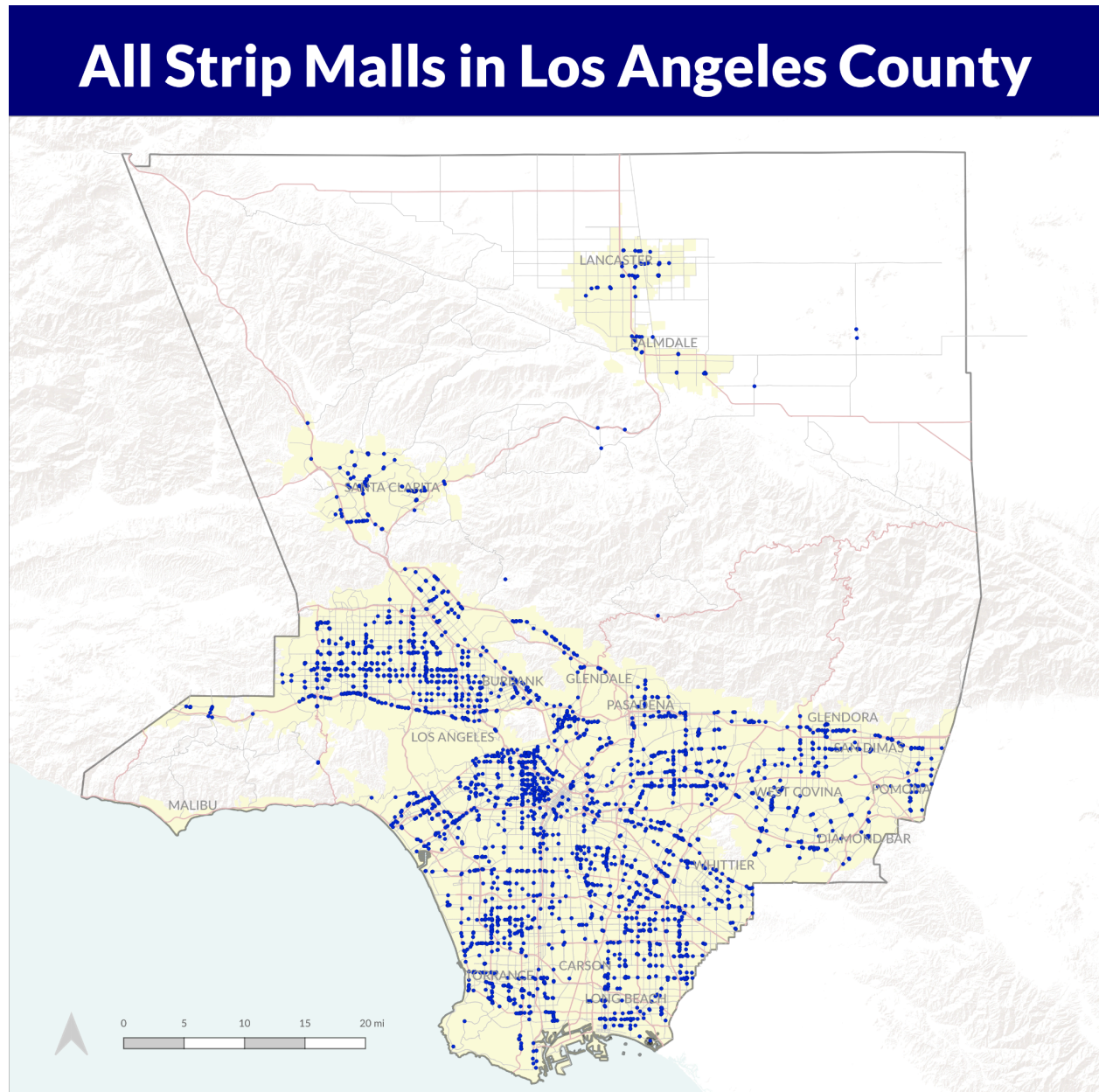
*Figure 5: Small one-story strip mall in East Los Angeles*



*Figure 6: Large two-story strip mall in Beverly Hills*



*Figure 7: Mid-sized one-story strip mall in Hollywood*



*Figure 8:* Los Angeles County Strip Mall Map

### *Spatial Distribution*

This section will analyze the spatial distribution of the newly created, comprehensive set of over 2,700 strip malls, mapped in *Figure 8*. By aggregating the strip malls to areal units, the analysis will find areas of greatest per-capita concentration of strip malls in Los Angeles, as well

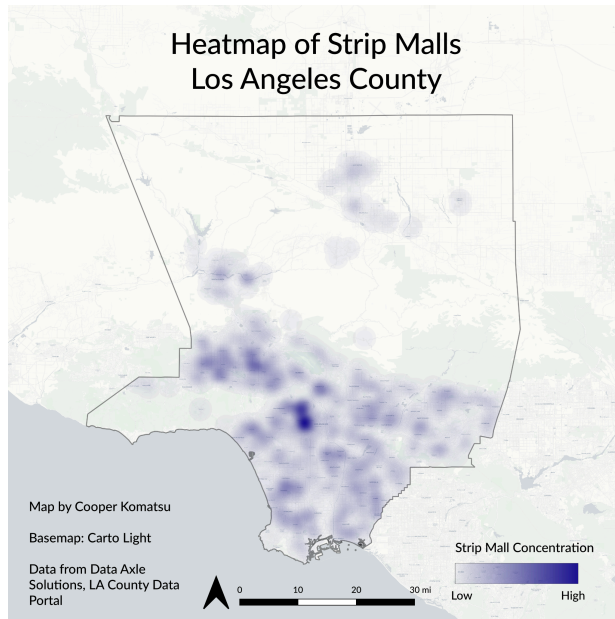
as make a kernel density estimation heatmap to interpolate the point pattern. Lastly, it will produce a measure of “strip mall reliance” by measuring the proportion of strip mall-type businesses in a given area that are within strip malls. Then, it will demonstrate the global and local spatial autocorrelation of strip malls across the county.

At first glance, the greatest concentrations of strip malls seem to be just northwest of Downtown LA, in the neighborhoods of East Hollywood and Koreatown. Understandably sparse in strip malls are the non-urbanized areas and mountainous areas of Los Angeles County. Importantly, the high concentration of businesses and especially parking in Downtown LA (displayed in *Figures 2* and *3*) did not translate to a high concentration of strip malls in DTLA tracts. This is a good check to make sure the selection process is working: although Downtown may have many businesses and many parking lots, the two are not arranged in strip malls. The other pattern immediately visible is the location of strip malls along major streets. While this was expected—in fact, strip malls were *required* to be along major streets—their distribution along those streets varies. Along some streets, strip malls fell anywhere alongside the side of the street. These roads included Ventura Boulevard in the San Fernando Valley, Western Avenue through Central LA, Garvey Avenue from Monterey Park to El Monte. However, other regions and streets had strip malls almost only where two major streets *intersected*. In the Gateway Cities and especially in the central San Fernando Valley, the strip malls appear almost as nodes on the square city grid. This may be due to the historical reliance of strip malls upon car traffic to attract customers. While massive streets like Ventura, Western, and Garvey are able to garner enough traffic to maintain a strip mall, streets that are not quite as large only experience enough traffic and their intersections.

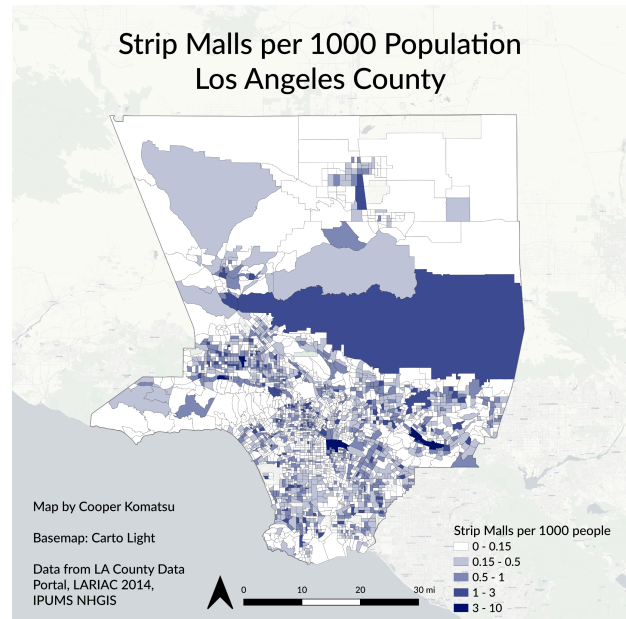
Although the simple plotting of strip malls of points provides some unique insight, it also is limiting in that points often overlap and regional patterns are harder to interpret. To interpolate between the strip mall points, a Kernel Density Estimate heatmap was also produced. The KDE map of strip malls reveals an interesting fact about the method of grouping by tracts. Like before, Hollywood and Koreatown stand out, although less dense, strip-mall populated areas also become apparent in the central San Fernando Valley, Gateway Cities, and the southern half of the South Bay.

However, a raw analysis of strip malls may not be a useful measure of strip mall density in a tract; strip malls exist to serve people, and pop up where people live. Because of this, a per-capita measure may be more informative. Census tracts were chosen as the areal unit for this analysis, as they are large enough that results for individual tracts are reliable, but small enough that granular analysis can be conducted. After spatially joining the strip malls to their respective census tracts, a count of strip malls per 1,000 people was plotted and can be seen in *Figure 11*. When counting strip malls per 1,000 people, less central, less population-dense areas of LA county appear more strip-mall-dense. In addition to the aforementioned San Fernando Valley, pockets of San Pedro, Torrance, and Monterey Park stand out for their strip mall density. As expected, there were few strip malls in the mountain communities of LA, even standardizing for population. South Los Angeles also had few strip malls per capita, perhaps pointing to a general disinvestment and lack of commercial opportunities there.





*Figure 10: Strip Mall Heatmap*



*Figure 11: Population-Standardized Strip Mall Count*

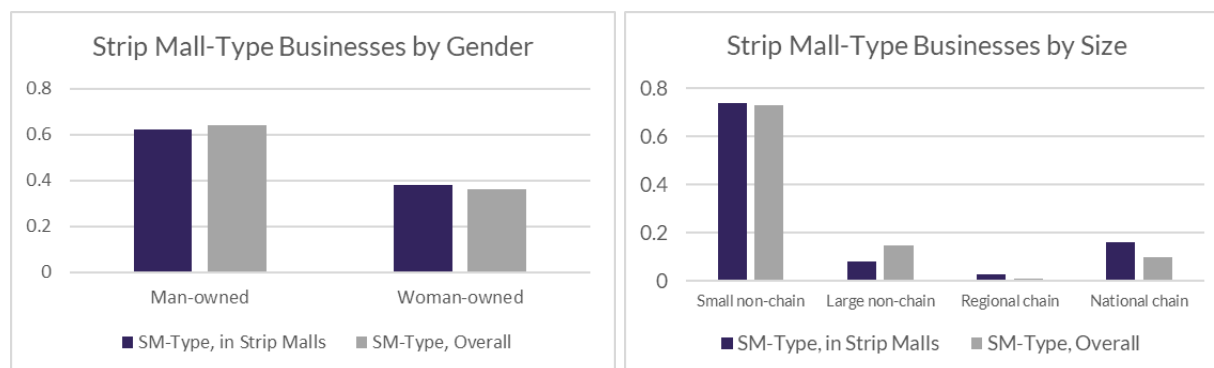
### *Characteristics of Strip Mall Businesses*

With all strip malls in Los Angeles County identified, it is possible to go back and analyze the businesses that make up those strip malls. Earlier, businesses were joined to the nearest parcel, so long as that parcel was within 70 feet of that parcel. Empirically, these methods unfortunately did not capture all of the businesses in strip malls, either due to incomplete business records, mis-geocoding of business locations, or inconsistencies in labeling across time. The following is an analysis of those businesses that *were* counted as part of a strip mall (in a parcel AIN code that ended up containing a strip mall). These businesses were compared against all strip mall-type businesses, including those that *were not* counted as part of a strip mall—similarly to the methods in the strip mall reliance calculation. This comparison was made because strip mall-type businesses, which make up only about a quarter of all businesses, are



assumed to have consistently different characteristics than businesses overall.<sup>11</sup> As such, the comparison can provide insights into the specific character of strip malls and their businesses.

The results are displayed in the *Figures 15-18* below.



*Figure 15: Strip Mall Business Comparison by Size*

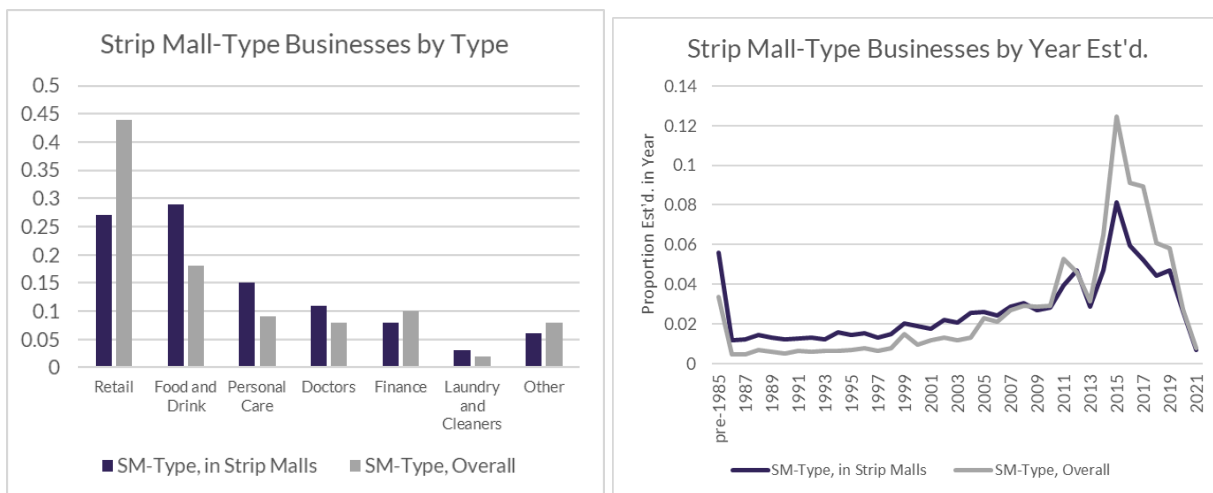
*Figure 16: Strip Mall Business Comparison by Gender*

*Business Size:* Sales volume of the location, or of the parent company if applicable, was used to approximate the size of strip mall-type businesses in and out of strip malls. A large majority, 74%, of strip mall businesses were non-chain businesses with less than \$1 million in yearly sales, classified as small. Another 8% were non-chain businesses with more than \$1 million in yearly sales, classified as medium. 5% were regional chains, whose parent companies have less than \$1 billion in yearly sales. 12% were national chains, whose parent companies have more than \$1 billion in yearly sales. Despite being small business-dominated, strip malls were more likely to be part of large companies than strip mall-type businesses as a whole. Overall strip mall-type businesses had a similar rate of small non-chain businesses (75%), but they had more large non-chains (14%) and fewer national chains (7%). This is contrary to the idea that strip

<sup>11</sup> If they were compared against all businesses, then we might mostly be seeing a comparison between strip mall-type and non-strip-mall-type businesses—we are more interested in what *being in a strip mall* means for a business.

malls should be small and community-centered: strip mall-type businesses were selected with the intent of finding smaller businesses that could fit within smaller retail centers. However, while large-scale locations of businesses were excluded, small-scale branches of larger companies remained. Main street retail, not jointly owned and not in a retail center, may be less likely to be national chains than businesses in strip malls. Compared to power centers and big box malls, however, the businesses in strip malls are still predominantly small businesses, and strip malls are more likely to represent the interests of small businesses than those other, larger-scale retail centers.

*Gender:* Among those businesses where the gender of the chief executive was made public,<sup>12</sup> 38% were run by women, while 62% were run by men.<sup>13</sup> The gender disparity is roughly in line with strip mall-type businesses overall, 36% of which are run by women, and 64% of which are run by men. Still, it is important to recognize throughout this discussion that women have significantly lower business ownership opportunities than men across LA County. It is crucial that both public and private sector power brokers enact programs that increase those opportunities for women, as well as gender minorities.



<sup>12</sup> This was true for 56% of all strip mall-type businesses and 63% of those businesses in strip malls.

<sup>13</sup> This difference is significant (chi-square = 15.88, p < 0.0001), but certainly small.

*Figure 17: Strip Mall Business Comparison by Type*

*Figure 18: Strip Mall Business Comparison by Year Established*

*Business Type:* NAICS codes were again used to understand the types of business at strip malls. Because of the methodology of selecting strip malls using only “strip mall-type” businesses, only those NAICS codes (see Table 2) were included in these calculations. Of those businesses, 29% were food and drink places. 27% were retail businesses. 15% were personal care businesses, places like nail salons and barber shops. 11% were doctors’ offices—mostly dentists and chiropractors. 8% were finance operations—loan brokers, insurance agents, etc. 3% were laundry and dry cleaners. Strip mall-type businesses overall were 44% retail, 19% food and drink, 9% personal care, 8% doctors, 10% finance, 2% laundry, and 8% other. Comparing the two, we can see that businesses in strip malls were more likely to be food and drink, personal care stores, doctors’ offices, and laundromats than expected, whereas they were less likely to be retail stores. This may mean that these types of businesses are more likely to thrive in strip malls as a form than outside of them. On the other hand, this may simply reflect that strip malls in Los Angeles contain unique types of businesses, meaning that the broadest category (“retail”) also contained many businesses that were not specific to strip malls. At the same time, this would confirm that the NAICS codes chosen for strip mall-type businesses are predictive for strip malls.

*Business Establishment Year:* Lastly, the businesses in strip malls were analyzed by their year of establishment. 12% of businesses were established in or before 1990, 15% between 1991 and 2000, 25% between 2001 and 2010, 24% between 2011 and 2015, and 24% after 2015. As seen in *Figure 18*, the strip mall-type businesses in strip malls tended to be much older than strip

mall-type businesses overall. For all years before 2010, businesses established in that year make up a larger proportion of businesses in strip malls than they do of all strip mall-type businesses. After 2010, businesses in strip malls are less likely to have been established in that year. Only 6% of all strip mall-type businesses were established by 2000; only another 8%, by 2010. Likewise, fully 33% of all strip mall-type businesses were established after 2016, and another 32% from 2011-2015. For strip mall-type businesses, any business that stuck around from even 2000 would be abnormally old. However, this is quite commonplace for businesses in strip malls. This pattern can be explained in two ways, and the reality is likely some combination of the two. One is that strip mall businesses are unusually resilient across time, as they enjoy stability from the single ownership of the whole strip mall and business coming from other businesses in the strip malls. The other explanation is that strip malls are older forms, and that since strip mall construction slowed in the 1990s, there have been fewer opportunities for new businesses in strip malls.

### *Strip Mall Reliance*

Although the distribution of strip malls is telling in terms of where they make an impact, it only tells half of the story. To better understand communities' relationship with strip malls, it is better to create a metric of strip mall *reliance*. Where are residents' daily lives are most impacted by strip malls, and where would residents be more harmed in the absence of strip malls? Unfortunately, the author was not in Los Angeles to interview people on their reliance on strip malls or their movement patterns throughout the city. Instead, reliance was proxied by comparing the overall amount of *strip mall-type* businesses with the number of those businesses that were

actually *in* strip malls.<sup>14</sup> To take a particularly salient strip mall business, the karate dojo, as an example: if you are looking for a karate dojo in your tract, what is the chance that the karate dojo will be in a strip mall? This was done by summing up the number of businesses in each strip mall in a given tract. Then, the set of overall strip mall-type businesses was counted by tract as well. Dividing the former by the latter, a “strip mall reliance” variable was calculated. This calculation makes the notable assumption that people use community resources near where they work, which can be especially fallible in mobility-centric Los Angeles, but it is the best approximation with the data available.

The strip mall reliance metric is mapped in the county overall in *Figure 12* and with detail for the East San Fernando Valley and West Side.<sup>15</sup> Strip mall reliance goes even further than per-capita strip mall concentration to emphasize strip mall presence outside of traditional commercial corridors. While Ventura Boulevard contains many strip malls, for instance, it also contains many strip mall-type businesses outside of strip malls, meaning that the tracts along it do not appear nearly as strip mall-reliant as might be expected. On the other hand, business-sparse areas in the southeast of LA County get a boost, as the relatively few strip mall-type businesses are in fact *in* strip malls. Although clear patterns emerge, the data is still patchy due to the modifiable areal unit problem—whichever census tracts geometries are chosen, there will be strip malls across the street that don’t count for that tract, but nonetheless are impactful for it.

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<sup>14</sup> This relies on the key difference between a *strip mall-type business* and a *business in a strip mall*. A restaurant or hair salon within main street retail, for example, would still be *strip mall-type*, but not *in a strip mall*. Since strip mall-type businesses are assumed to have different characteristics than businesses overall, comparing businesses in strip malls to strip mall-type businesses allows for an apples-to-apples comparison.

<sup>15</sup> Due to the large size of non-urbanized census tracts in North LA County, an inset helped to illustrate the patterns without those tracts overwhelming the image.

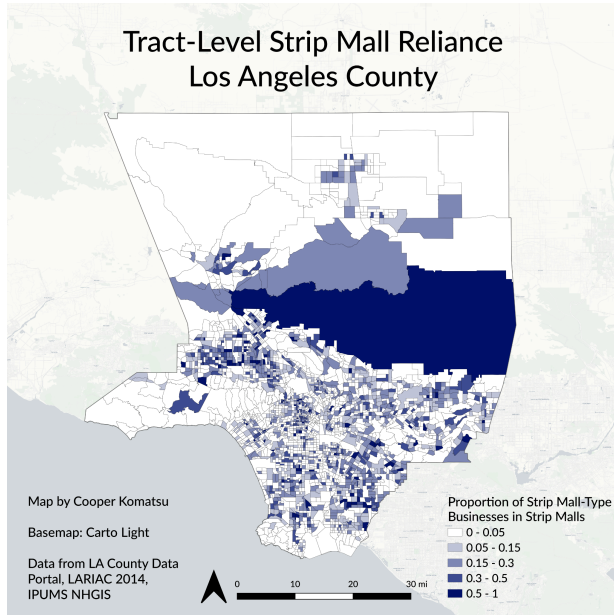


Figure 12: Strip Mall Reliance by Tract

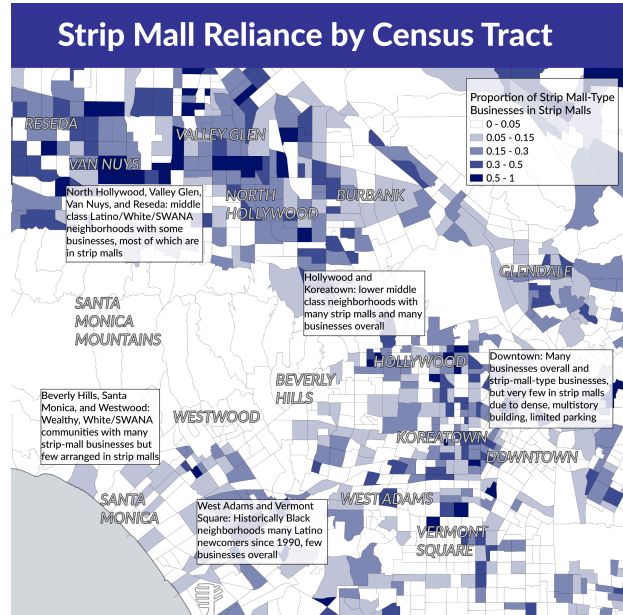


Figure 13: Strip Mall Reliance by Tract, detail

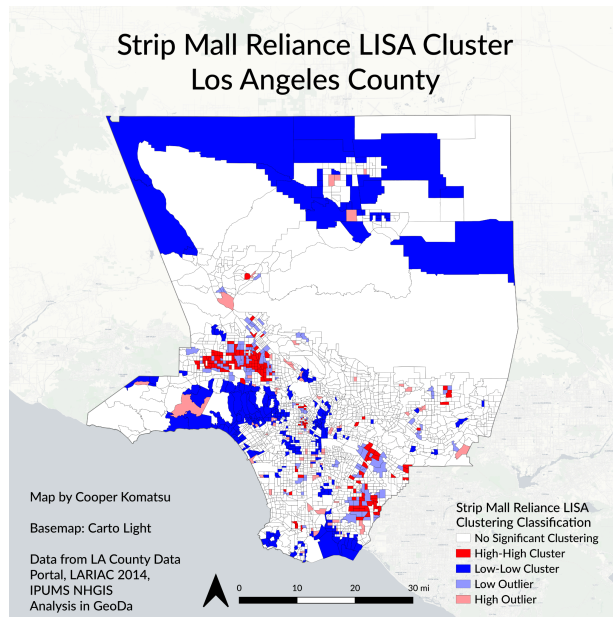


Figure 14: Strip Mall Reliance LISA Clusters

To move away from simply counting within tracts and better account for regional strip mall reliance, a LISA clustering map (Queen-2 contiguity) was created using the strip mall

reliance metric, aggregated to the census tract level. LISA compares a given tract's value for strip mall reliance with the values for all of its neighbors. If both the tract and its neighbors have unusually high values, then it is part of a high-high cluster; likewise for low-low clusters. If the tract is unlike its neighbors, and the spatial lag is large, then the tract is counted as an outlier—either high-low (high for tract, low for neighbors) or low-high. Overall, the strip malls exhibited weak yet significant spatial autocorrelation (Global Moran's  $I = 0.10$ ). This suggests that there are certainly areas where strip mall reliance is higher or lower, although it is relatively even through the county. LISA analysis with Local Moran's  $I$  was used to determine where those zones of high and low strip mall reliance were.

The largest high-high cluster of strip mall reliance was in the central San Fernando Valley (Reseda, Winnetka, Van Nuys, Valley Glen). There was another large high-high cluster in the Gateway Cities, stretching from Cerritos and Lakewood up the 605 Freeway toward Downey and Pico-Rivera. Smaller high-high clusters occurred in Lawndale, La Mirada, Glendora, Hollywood, and Koreatown. These communities are mostly middle-class communities, ranging from lower (Koreatown) to middle (Valley Glen) to upper (Glendora) middle-class, although they skew lower. They are East/South Asian (Cerritos), Central American (Koreatown), Mexican (Downey), and Southwest Asian (Valley Glen) enclaves. Low-low clusters, on the other hand, presented a more bimodal class distribution. Logically, there are two reasons for strip mall reliance to be low: the presence of many businesses overall, and the presence of few strip malls. Downtown Los Angeles had some strip malls, but far more businesses overall, leading to a low strip mall reliance value. The same was true to a lesser degree for the upper-class neighborhoods of Beverly Hills, Santa Monica, View Park-Windsor Hills, and Westwood. On the other hand, there were low-strip-mall reliance clusters with few overall businesses. The mountain

communities of Bel Air and Rancho Palos Verdes are largely residential, leaving little room for commercial space and strip malls. The last large low-low cluster was a spotty network of tracts throughout South and South Central Los Angeles, composed of historically Black but increasingly Mexican and Central American, lower-class neighborhoods.<sup>16</sup> Altogether, the demographics of the high-high and low-low clusters are below in *Table 4*.

<b>Statistic</b>	<b>HH Cluster</b>	<b>LL Cluster</b>	<b>LA County Overall</b>
Hispanic or Latino	54.4%	36.6%	48.0%
White NH, not SWANA	19.2%	32.0%	25.6%
Asian NH	13.5%	10.8%	14.7%
Black NH	5.0%	9.7%	7.6%
Southwest Asian/North African	4.4%	6.2%	3.8%

### *Demographic Correlates*

Beyond the demographics of clusters, regression analysis presents another, more complete way to understand the cultural and economic implications of strip malls. With strip malls aggregated to the census tract level, it is possible to regress the strip mall reliance metric from above against any census demographic variable. Rather than any other metric of strip mall presence, strip mall *reliance* was chosen as the regressing variable here because it did a good job of isolating places not just places that *have* strip malls, but places that are affected by them, either in their perceived quality or the needs of their residents. The following analysis will compare strip mall reliance with selected census variables to understand what sorts of communities are connected with strip malls.

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<sup>16</sup> This may be in part due to the chronic lack of capital that South LA experiences, meaning that businesses may struggle to stay open in strip malls, and other sorts of businesses predominate. However, other, poorer neighborhoods have many strip malls, so this theory is by no means complete. In the end, the lack of strip malls in South LA may be the result of strip malls never having been there in the first place.



### Understanding Race in LA

Urban sociological research has often been undergirded by racial categories as a way to understand cities' social divisions and inequalities. However, the US Census' racial categories—White, Black, Latino, Asian, American Indian, Pacific Islander—are woefully ill-equipped to proxy American social realities. Nowhere is the six-category racial paradigm more flawed than in Los Angeles.

Latinos make up 48% of the population of Los Angeles County, but the term *Latino* conceals the wide diversity in identity among those classified as such. The inherent issues of a unified *latinidad*, which can erase indigeneity and African heritage, were brought to the forefront by the 2022 scandal in which Mexican Councilmember Nury Martinez made derogatory remarks about Oaxacans (Gomez, 2022). Nationality is also a significant element of Latino diversity in Los Angeles: the city is home to the nation's largest population of Central Americans, mostly Guatemalans and Salvadorans. Furthermore, Census Data is inadequate to understand the racial paradigms of Latin America. For example, a person who identifies as Afro-Latino would be counted the same as a person who identifies as mixed, half Black and half Latino.

In addition, Southwest Asian and North African (SWANA) Americans—Persians, Armenians, Israelis, and Arabs—make up a large proportion of the county's population, especially in the San Fernando Valley and the Verdugos. The Census has instructed SWANA Americans to label themselves as “White” or “Other,” until the 2030 Census, when the category will be introduced (Alsharif, 2024). These populations, diverse in themselves, occupy a very different status than Whiteness in Los Angeles (Bozorgmehr, Der-Martirosian, and Sabagh, *Ethnic Los Angeles*, 1996, p. 345).

Asian Americans are also not well represented by the six racial categories. Los Angeles County's Asian-American population is very diverse, with large populations of Filipinos, Chinese, Koreans, Japanese, Vietnamese, Taiwanese, Thais, Asian Indians, and Cambodians. That all of these communities are counted under one umbrella is bizarre given their stark differences in culture, language, immigration, and socioeconomic outcomes. It is only in the United States that Asians in America "became Asian Americans" a tenuous grouping (Cheng & Yang, *Ethnic Los Angeles*, 1996, p. 307).

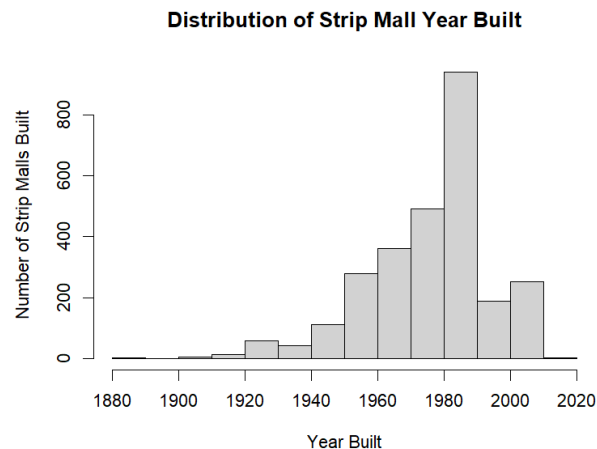
For these reasons and others (Black and African diversity, mixedness, generationality), race will be used sparingly in the analysis of strip malls in Los Angeles. Instead, factors like language, ethnicity, and class will be used to supplement alternative categories of race. However, to start off the thinking about what types of people rely on strip malls, an altered racial set of racial categories containing Southwest Asians and North Africans is shown in *Table 4*. Although none of these correlations explains more than 2% of data on its own meaning that race is not a particularly strong factor in strip mall reliance (or vice versa), it is still evident that Latinos in Los Angeles are more likely to be more reliant on strip malls, whereas Black and SWANA Angelenos, and especially White Angelenos, are less likely to be reliant on them. In addition, a negative correlation between median income and strip level reliance means that areas that are reliant on strip malls tend to be poorer.

<b>Table 4: Preliminary Regressions Against Tract-Level Strip Mall Reliance</b>			
<b>Variable Description</b>	<b>Relationship</b>	<b>Adj. R<sup>2</sup> value</b>	<b>p-value</b>
Hispanic or Latino	Positive	0.008	4.5x10 <sup>-6</sup> ***
White NH, not SWANA	Negative	0.0087	2.0x10 <sup>-6</sup> ***
Asian NH	Insignificant	0.00065	0.11
Black NH	Negative	0.0028	0.0047 **
Southwest Asian/North African	Negative	0.0017	0.0041 **

Median Income (Individual/Household Compromise)	Negative	0.020	$7.1 \times 10^{-13}$
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### Nativity and Strip Malls

One defining characteristic among people in Los Angeles is nativity—whether people were born in the United States or not. From 1970-1990, due to increased lenience in immigration policy, Los Angeles transformed from a land of native-born Americans<sup>17</sup> to a land of foreign-born Americans (Waldinger and Bozorgmehr, 1996). Loukaitou-Sideris (1997, 2002) used Los Angeles as a staging ground for her study on immigrant-run, culturally-centered strip malls. Loukaitou-Sideris (2002) and Linovski (2012) both noted recent immigrants’ tendency to land at and form communities in strip malls, appropriating a form that really exploded at the same time as the immigration. In doing so, they would often “revitalize” strip malls that were once struggling for business. This analysis goes back to 1990 to complete a quantitative confirmation of the patterns Loukaitou-Sideris notes, then asks whether those patterns are still applicable today.



*Figure 15: Histogram of Strip Mall Construction Year (among 2020 strip malls)*

<sup>17</sup> Although not California natives—many early 20th century Angelenos were White transplants from the Midwest.

First, strip mall reliance was recalculated for 1990 using the same set of strip malls, but selected for only those built before 1990—this did not result in too big of a change, as most all strip malls were built by 1990, when economic and legal changes caused a several dip in strip mall construction, as seen in the histogram in *Figure 15*. While this misses out on strip malls that have been lost since 1990, it was not within the scope of this project to get that data. Then, regressions were run between strip mall reliance and the year of entry for the foreign-born population of LA County at the time. In the regressions, a clear pattern shows up: not only was overall foreign-born percent positively correlated with strip mall reliance, but more recent immigrants were also sequentially more likely to be strip mall reliance. By pre-1960 immigrants, they were *negatively* correlated with strip mall reliance. This shift lines up quite clearly with the transformative immigrant influx in the 1970s, perhaps indicating that immigrants from places that saw greater immigration booms—Vietnam, Mexico, South Korea—entered into strip mall-dependent neighborhoods.

**Table 6: Strip Mall Reliance Regressions Against Year of Entry, 1990**

Variable Description	Relationship	Adj. R <sup>2</sup> value	p-value
All foreign-born	Positive	0.0037	0.0075 **
Entered after 1987	Positive	0.0064	6.6x10 <sup>-4</sup> ***
Entered 1985-1986	Positive	0.0052	0.0019 **
Entered 1982-1984	Positive	0.0075	2.5x10 <sup>-4</sup> ***
Entered 1980-1981	Positive	0.0059	9.9x10 <sup>-4</sup> ***
Entered 1975-1979	Insignificant	0.00073	0.14
Entered 1970-1974	Insignificant	-0.00059	0.862
Entered 1965-1969	Insignificant	-0.00026	0.45
Entered 1960-1964	Insignificant	-0.00061	0.97
Entered 1950-1959	Negative	0.0046	0.003 **
Entered before 1950	Negative	0.0040	0.006 **

The same sort of pattern played out in 2020. Immigrants after the 1990s were significantly more likely to live in more strip mall-reliant neighborhoods. However, concentration of pre-1990 immigrants was just weakly correlated with strip mall reliance. This is especially shocking because the surviving immigrants from the 1990 census are probably the immigrants from 1970-1990, a group that was clearly strip mall-dependent in 1990. This suggests that, as immigrants spend more time in Los Angeles, they move out of the most strip mall-dependent neighborhoods.

**Table 7: Strip Mall Reliance Regressions Against Year of Entry, 2020**

Variable Description	Relationship	Adj. R <sup>2</sup> value	p-value
All foreign-born	Positive	0.012	1.9x10 <sup>-8</sup> ***
Entered after 2010	Positive	0.0044	5.7x10 <sup>-4</sup> ***
Entered 2000-2009	Positive	0.011	8.0x10 <sup>-8</sup> ***
Entered 1990-1999	Positive	0.0078	6.4x10 <sup>-6</sup> ***
Entered before 1990	Positive	0.0020	0.016 *

One potential weakness of this approach is that the correlation with nativity is that, due to the primacy of Latinos in Los Angeles, other immigrant groups' patterns may be shielded by the volume of Latino immigration, or rather demographic and geospatial patterns among Latinos that have taken to be “immigrant things.” However, the following analysis seeks to show that, across demographic groups, non-native Angelenos *are* correlated with strip mall reliance across races. For each of the five racial categories, the foreign-born segment of the population was more correlated with strip mall reliance than the native-born segment.

**Table 8: Regressions Against Nativity by Race and Ethnicity**

Variable Description	Relationship	Adj. R <sup>2</sup> value	p-value
Hispanic or Latino, Native-Born	Positive	0.0054	1.4x10 <sup>-4</sup> ***
Hispanic or Latino, Foreign-Born	Positive	0.0087	2.1x10 <sup>-6</sup> ***

White NH not SWANA, Native-Born	Negative	0.0099	$4.3 \times 10^{-7}$ ***
White NH not SWANA, Foreign-Born	Weakly negative	0.0014	0.037 *
Asian NH, Native-Born	Insignificant	~0	0.51
Asian NH, Foreign-Born	Weakly positive	0.0011	0.050 *
Black NH, Native-Born	Negative	0.0029	0.0042 **
Black NH, Foreign-Born*	Insignificant	~0	0.20
SWANA, Native-Born	Negative	0.0064	$4.2 \times 10^{-5}$ ***
SWANA, Foreign-Born	Insignificant	~0	0.40

\*Foreign-born Black people make up only about 0.6% of Los Angeles's population, so the sample sizes are not large enough for high correlation values that other groups have.

### Language and Strip Malls

One element that binds community, although by no means a complete one, is language. By this measure, Los Angeles exhibits remarkable linguistic diversity. The majority of Angelenos—fully 56%—speak a language other than English at home. Of the total population, 39% speak Spanish, 7% speak some other Indo-European language (Persian, Armenian, Yiddish, etc.), and 8% speak an Asian or Pacific Island language (Mandarin, Tagalog, Bengali, Vietnamese, etc.) (Census Bureau 2022). When English is not the majority language, it scarcely makes sense for it to be the language of public-facing retail. As a result, many businesses, especially those in ethnic enclaves, offer services primarily in a language other than English. The towering signs announcing strip malls' constituent businesses are adorned with Spanish in Panorama City, Armenian in Valley Glen, and Korean in Koreatown. This serves both practical and ethnic purposes. Practically, businesses simply cater to a larger customer base when they advertise in the language people speak. But beyond that, a common language signals ethnic in-group solidarity, a shared cultural understanding, and potentially community feeling (Portes, 1987). In car-centric Los Angeles and its car-centric commercial corridors, many commute from elsewhere in the city to find and maintain community in strip malls in ethnic enclaves. Outside of

ethnic enclaves, ethnic businesses persist in strip malls, but their signs are more likely to be in English. This explicitly outward-facing element of ethnic belonging is not shown prominently; vehicular passersby are less likely to identify with, much less read, signs in the non-English language, and the business can appeal to a broader swath of the population. In fact, these variegated strip malls are significantly more common than singularly ethnic strip malls. Even if they do not use language to mark it, they still play a significant role in community formation.

As for the future of language as a signpost of ethnicity, there is evidence that it may be decreasing. While 56% of Angelenos spoke a language other than English in the 2022 Census, this figure has been steadily declining since a peak of over 60% in 2016. In part, this may be due to the emergence of second- and third-generation English-speaking households. Waldinger and Bozorgmehr outline that the 1970s inaugurated a period of remarkable ethnic change in Los Angeles. As immigration laws loosened, many Mexicans, Salvadorians, Chinese, Vietnamese, and later Koreans were able to immigrate to Los Angeles, beginning family and community chain migrations (Waldinger, Bozorgmehr, et al., 1996). While many still immigrate to Los Angeles today, the home English acquisition of those earlier multi-generational families may be starting to outpace the influx of non-English speakers. Los Angeles's ethnic enclaves are in no danger of disappearing completely, but as linguistic isolation falls, there is less practical need for linguistic (and therefore ethnic) enclave formation. English-speaking residents with a wider range of economic opportunities may move to more ethnically diverse communities. For one, this may mean that they are less likely to be strip mall business owners. This paper aims to show that strip malls are important anchors for ethnic and linguistic communities. As a result, the redevelopment of those strip malls may disperse ethnic communities, accelerating it beyond the

voluntary action of community members that comes with generational patterns of industry (Waldinger and Bozorgmehr, 1996).

<b>Variable Description</b>	<b>Relationship</b>	<b>Adj. R<sup>2</sup> value</b>	<b>p-value</b>
Limited English speaking	Positive	0.010	3.0x10 <sup>-7</sup> ***
English only at home	Negative	0.011	8.6x10 <sup>-8</sup> ***
Spanish at home, limited English	Positive	0.0062	5.4x10 <sup>-5</sup> ***
Spanish at home, proficient English	Positive	0.0045	4.9x10 <sup>-4</sup> ***
Korean at home, limited English	Insignificant	~0	0.39
Korean at home, proficient English	Insignificant	~0	0.5
Chinese at home, limited English	Insignificant	~0	0.7
Chinese at home, proficient English	Insignificant	~0	0.16
Slavic at home, limited English	Insignificant	~0	0.7
Slavic at home, proficient English	Negative	0.001	0.04 *
Vietnamese at home, limited English	Positive	0.0026	0.0059 **
Vietnamese at home, proficient English	Insignificant	0	0.46
Tagalog at home, limited English	Positive	0.0087	2.1x10 <sup>-6</sup> ***
Tagalog at home, proficient English	Positive	0.0088	1.6x10 <sup>-6</sup> ***

Through these regressions it is clear to see that people who speak languages other than English, as well as those with limited English proficiency, tend to be significantly more strip mall-reliant than home English speakers. Unfortunately, data was not available specifically for Armenian, Persian, Japanese, Khmer, or other languages spoken widely in Los Angeles County but not widely enough nationwide for the Census to collect data on it. However, household speakers of Spanish, Korean, Chinese, Slavic languages, Vietnamese, and Tagalog were able to be analyzed for the difference between limited and proficient English speakers. Given the aforementioned predominance of Spanish in Los Angeles County, it might be reasonable to assume that the strip mall reliance of limited English speakers might just be a reflection of the correlation of Latinos



with strip mall reliance. However, *language*, specifically, is an important characteristic, too: *within* home Spanish speakers, tract-level limited English speakership was more correlated with strip mall reliance than was English proficiency. The same pattern appeared for home speakers of Slavic languages and Vietnamese, while there was minimal difference in correlation among the other languages. This means that limited English speakers are more likely to rely on strip malls, and that strip malls may provide a significant linguistic cultural resource for these individuals. One interesting data point in this table is the *lack* of a correlation between Korean speakership and strip mall reliance, even among limited Korean speakers. Koreatown, which has a large Korean population and relatively low English proficiency, has been established as a center of strip mall presence and reliance in Los Angeles county. However, the suburbanization of ethnic communities to places like Porter Ranch, Torrance, and Rowland Heights among Koreans shows up in this data.

While this article has been trying to point out the trends among strip mall locations, it is evident that, overall, strip malls are relatively well-distributed in Los Angeles County spatially, demographically, and socioeconomically. It is true that recent immigrants with limited English speakership and Latinos have high strip mall reliance. It would have been possible to create a stronger regression model by combining more census variables, but that might just have produced a contrived result. The evidence supporting the relative evenness of the distribution of LA strip malls lies in the overall weakness of the Global Moran's I and the weakness of even the most significant regression results. Between these two factors, one might conclude that strip malls are an insignificant urban form, no more representative of any one demographic interest than any other. However, this is far from the case. The locations of strip malls were decided before or during the radical demographic shifts of the 1970s-1990s in Los Angeles, and the city

is still far from demographically stable today. It is notable, indeed, that strip malls have been continually effective through these demographic shifts; that any community that lives near a strip mall would be able to incorporate it into its own community fabric.

## DISCUSSION

Through the above analyses, the Los Angeles strip mall has been thoroughly defined, identified, and explored. While this understanding of the strip mall is interesting, it is most valuable insofar as it can inform urban policy. The following section will engage in the discussion regarding the potential redevelopment of strip malls, eventually suggesting different redevelopment pathways depending on index values.

### *The Case Against Strip Malls*

As illustrated in the prologue about Sunrise Village Plaza, strip malls are now under significant pressure from those that want to redevelop them into housing complexes with less parking and more walkable space. This pressure comes in part from those who find the aesthetic form of strip malls disagreeable, and who would prefer to shop in, frankly, a more beautiful space. The Los Angeles City Zoning code reflects these concerns about strip mall appearance in its regulations. The zoning code mandates parking lot lighting to cultivate an image of safety, as well as 6-foot walls abutting any residential property to minimize the nuisance the strip mall might cause (City of Los Angeles, 2024, 2.12.24.A.27). It further regulates the tall, street-facing signs that are ubiquitous among Los Angeles strip malls and advertise their component businesses through a permitting system. Perhaps most tellingly, the zoning code allows the city to reject a proposed strip mall if it would result in “a detrimental concentration of Mini-Shopping Centers or Commercial Corner Developments” (City of Los Angeles, 2024, 2.12.24.A.27). All told, the Los Angeles zoning code sees strip malls as potentially aesthetically harmful and tries to regulate them as best it can.

Adding onto these aesthetic arguments, the prevailing voices in urban planning, influenced by New Urbanism, argue that strip malls are by their very nature car-centric,

pedestrian-hostile, one- or two-story plots on prime land for people to live on. These urban planners have been adamant about the need to redevelop strip malls into more walkable, higher-density spaces with less parking space allotted—often affordable housing projects aimed at alleviating regional housing shortages (Gleason 2012, Omgivning 2020, Abu-Khalaf 2023, Mouisset 2023). Nowhere is this latter benefit more salient than in California, and specifically Los Angeles, where wages are not keeping up with continually increasing living costs, and residents often struggle to find affordable housing. In response, California has recently been legislating slews of new measures that make building housing much easier (Hall, 2020). Viewing some of the laws passed as either ineffective or counterproductive, noted California New Urbanist Peter Calthorpe pushed for building up on top of existing strip malls, arguing that they were struggling in the era of online shopping. The benefits of strip malls would be a less dense, but still densifying, alternative to huge transit-oriented development projects, and one that used existing structures rather than continuing the environmentally and urbanistically harmful endless outward sprawl of Los Angeles (Leslie, 2024). In addition, he argued that these new developments should contain first-floor commercial space to revitalize the existing businesses while providing services for residents. Calthorpe’s vision was played out in the 2022 California bill AB2011, albeit with less enthusiastic support for keeping first-floor retail where strip malls once were. In all, although AB2011 poses a threat to strip malls (as is mentioned in the next section), there are compelling reasons to imagine that it could create many units of affordable housing, and even *benefit* some strip mall businesses that are able to stay open in a reserved location beneath the housing.

*The Law as it Relates to Strip Malls*

The motivating pieces of legislation behind this research are a pair of California state laws, AB2011 and its mirror, SB6, which were passed in 2022 and went into effect in June 2023. Together, these two similar laws create pathways for strip malls to quickly be redeveloped into housing units with reduced oversight. These bills fast-track proposals to redevelop strip malls<sup>18</sup> into dense residential spaces: multi-story, multi-family, and often affordable housing units. Under this law, the process to approve such developments is explicitly and intentionally agnostic of local zoning codes, environmental review, and, importantly, the existing character of the strip mall. The agnosticism of AB2011 has merit—frequently, worthy development projects are bogged down for years in California’s extensive review process. The laws are written with the stated goals of relieving California’s housing crisis and reducing car dependency through upzoning and densification—building more homes and amenities on the same square footage. AB2011 and SB6 compound existing interest in strip mall redevelopment and upzoning, which had largely been led by private interests before the state stepped in (Linovski 2012).

AB2011, the more practical of the two laws, creates two different fast-tracks for developers to take advantage of. The first simply allows for residential units to be built upon *any* commercially zoned land if the newly built units are 100% affordable. These units must be sufficiently separated from industrial sites and freeways, and they must represent denser zoning than the previously existing development. The second fast-track is more geared specifically towards strip malls. It allows for smaller commercial-only lots to be redeveloped into residential units that are over 15% affordable. These new developments must meet high density and height standards, and they have no required parking and limited required setbacks from the street. In all,

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<sup>18</sup> While the bills never use the language of “strip malls,” their specifications limit the developable properties largely to parking lots and strip malls. The latter is the focus in this paper.

this pathway attempts to fill former strip malls with as many housing units as possible, with non-exclusive preference toward affordable units. Overall, commercial space is not part of the plan for these new housing projects. Importantly, however, AB2011 does *allow* municipalities to mandate commercial space on half of the first floor, if they so choose.

SB6, the more theoretical of the two, focuses on creating housing for the middle class. While “there is continued need for housing development at all income levels,” the “missing middle” takes precedence here in the fight to help Californians “live near where they work”. To create this housing—housing that must be near job centers on main streets—SB6 makes strip malls vulnerable to what it hopes will be a rapid redevelopment boom. It builds upon extensive existing efforts to house Californians, which variously focus on rent control, eliminating bureaucratic processes, and subsidizing densification. If a given project meets the qualifying standards for one of the pathways in SB6 or AB2011, discretionary objections are unlikely to halt its construction. The two laws only consider objections insofar as the development fails to comply with widely agreed-upon “objective zoning standards.” Those objective zoning standards may include “specific plans, inclusionary zoning ordinances, and density bonus ordinances,” and are incompatible with the more subjective claims of cultural or community importance.

Remembering back to the example of Sunrise Village Plaza, the two primary cudgels employed by activists were the commercial zoning of the area and the cultural importance of the mall to the local community. AB2011 would have allowed Fullerton’s government to bypass local zoning codes as well as the community review process, and it encourages similar types of developments.

While AB2011 does not mention strip malls specifically, its language does target urban forms that strongly include strip malls, and it has been cited as a bill to build upon existing strip malls. To show this, the criteria for AB2011 will be applied to the strip mall locations in the

catalog. The criteria for the location of potential redevelopment sites are summarized in Table 5 below:

<b>Table 10: Conditions for AB2011 Redevelopment Eligibility</b>			
<b>Condition</b>	<b>% Meeting Condition</b>	<b># Removed</b>	<b>Note</b>
In an urbanized area	99.6%	15	Strip malls are usually in urbanized areas; non-urbanized north LA County and the Santa Monica Mountains have few strip malls
< 20 acres in area	100%	0	Already covered by subsetting for buildings less than 3000 sq m ~ 0.5 acres
Not next to an industrial zone	87.2%	410	Included light industry; used 0.0003 degree buffer (~28m) to approximate the distance between two buildings on opposite sides of a main street
Not in a fire hazard zone	96.5%	112	Strip malls removed are mostly in foothill communities
Not within 500 ft of a freeway	92.7%	237	
Does not demolish existing housing	99.6%	13	Most all strip malls are zoned commercially, and in general strip malls do not have residential units attached to them
Other conditions	*	-	*
<b>Total</b>	<b>77.2%</b>	<b>635</b>	

\* Other conditions without reliable data: adjoining parcels developed with “urban uses”; not a mobile home park (covered by *not residential*), does not demolish a historic structure; allowed to be multifamily residential according to neighborhood plans; does not contain tribal resources

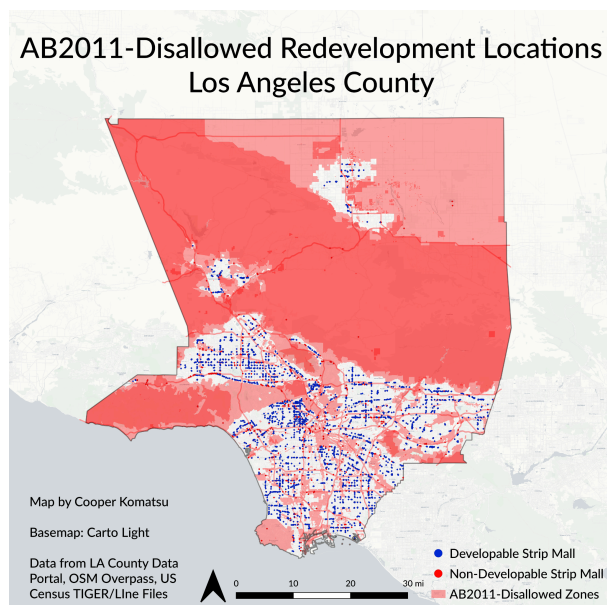


Figure 16: AB2011-Disallowed Redevelopment Locations in Los Angeles County

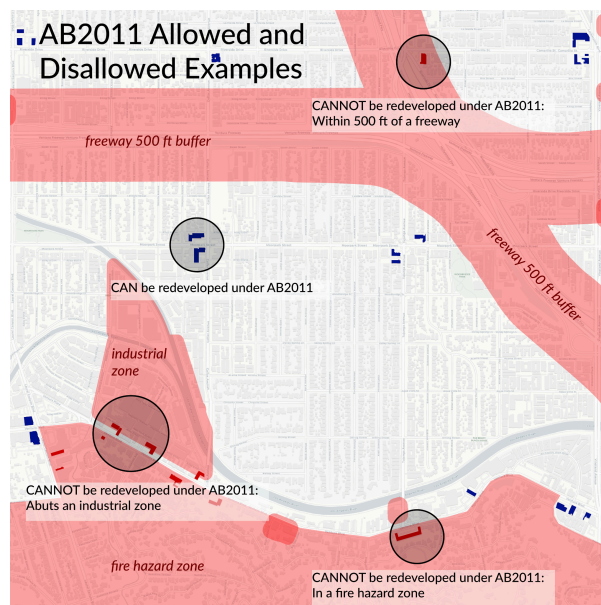


Figure 17: Examples of AB2011 Application in Studio City

In all, 2144/2779, or around 77.2%, of strip malls in LA County would be eligible for redevelopment under AB2011. This high value lines up with the claim that AB2011 targets strip malls as sites for redevelopment more than other forms of commercial space. With AB2011 in place, strip mall redevelopment has significantly fewer barriers across the board. Notably, the sites that are protected from redevelopment are mostly the ones that have nearby environmental issues, and that the state does not want to build new housing next to: fire hazards, industry, and freeways.

### *The Case for Strip Malls*

This paper's concern about strip malls owes much to the theoretical justification laid out in Linovski (2012), a local and qualitative study of Toronto strip malls, with interviews with shop owners and images of their properties foregrounded. Linovski uses the case-study city of Toronto to refute arguments (both in popular media and official policy) that strip malls are



unappealing and better used by new-build densified commercial space. The paper emphasizes the importance of strip malls as ethnic centers and affordable retail space, and extolls them as a “form of urban design that accommodates and encourages a diversity of uses and users” (Linovski, 2012, p.9). This research is inspired by Linovski’s thinking, and takes those findings as a starting point for understanding the potential impact of strip malls on Los Angeles as affordable and desirable retail space. Like Los Angeles, Toronto postwar suburbs have become remarkably diverse, serving as homes for people from around the world. Like Los Angeles, Toronto’s suburbs were the largest hotbeds for strip mall culture and reliance. And like Los Angeles, “fundamentally, the City of Toronto’s design guidelines encourage the redevelopment of much of the city’s existing strip malls” (Linovski, 2012, p. 16).

Despite restrictions on their development, the decrease in in-person shopping accompanying the COVID-19 pandemic, and pressure from gentrification, strip malls have remained a steady part of the fabric of Los Angeles. Regardless of Angelenos’ aesthetic opinion of strip malls, they gravitate toward them, whether out of spatial convenience or cultural connection or perception of product quality. Built at a community scale, and more often than not full of small businesses, they are unique in their ability to serve and provide economic autonomy for specific cultural, racial, and ethnic groups. When national chains refuse to set up shop in a neighborhood, small businesses in anchorless strip malls can provide crucial space to fill what would otherwise be commercial deserts: such is the case in the most strip mall-reliant clusters.

However much AB2011’s ignorance of local and case-by-case concerns helps new housing developments get out of the quagmire of the review process, it also runs the risk of harming or destroying existing strip mall-based communities. Even if the strip mall itself is maintained as commercial space as housing is built on top, the necessary construction involves a

pause in business that is not tenable for small businesses or lower- and lower-middle-income communities that often rely upon strip malls. Although not at all universally, many strip malls in Los Angeles are vibrant spaces where communities can gather, build wealth, and access essential social services. The regressions earlier shows that strip malls were especially significant for first-generation immigrants and non-English speakers as spaces to partake in enterprise as a consumer, a worker, or a business owner. For those who are linguistically assimilated and *could* go elsewhere, strip malls may be important spaces for people to connect with their culture. As seen in the example of Sunrise Village Plaza, commercial spaces are not to be overlooked as vessels of community and culture. Strip malls are unique in their unintentional capacity to induce community formation, promote ethnic solidarity, and allow people to own businesses for their own community.

### *A Developability Index*

As is often the case with these sorts of problems, where two well-meaning perspectives on urban issues collide, the solution falls somewhere in the middle. Developers are right that there exist struggling smalls with little economic or cultural vitality that would be excellent candidates for new housing space. New tenants would be able to take advantage of the space's convenient location along a major street while not having to open up more and more space to development. Likewise, there exist strip malls that serve as essential service and affinity spaces for communities, and it would be wrong to indiscriminately allow those sorts of spaces to be developed into something else. An index combining different quantifiable variables can serve as a preliminary but instructive way to assess case-by-case recommendations for strip mall development. The most developable strip malls would be strip malls that can use AB2011 pathways with few small businesses, a large amount of its area devoted to parking, struggling in terms of economic output, in a well-resourced, non-strip-mall-reliant, English-proficient neighborhood. This was translated

into data, and in the end, after recursive testing, the following formula was chosen to define the developability index (DI). While certainly not a perfect statistical tool, it gets at the main concepts that should determine whether a strip mall is redeveloped.

$$DI = (AB2011) * ((BIZ\_XL+1)/SM\_BIZ\_COUNT) * (AREA\_PARK/(AREA * HEIGHT))^{1/2} \\ * (BIZ\_SALES/LAND\_VALUE\_PCL) * (1/(SM\_REL+1))^2 * (INC\_COMPR) * \\ (ENG\_FLU\_PCT) * (WHT\_PCT)$$

\**AB2011* = 0 if not developable according to AB2011, 1 if developable. The strip mall is simply not developable through the AB2011 pathway if it is not in accordance with the law's text.

\**(BIZ\_XL+1)/SM\_BIZ\_COUNT*: Proportion of national chains in the strip mall. Higher proportion means that business-owners would have fewer negative consequences of strip mall redevelopment. Added 1 because just putting *BIZ\_XL* would send many strip malls to 0.

\**AREA\_PARK/(AREA \* HEIGHT)*: Ratio between the parking lot area and the building area, where the idea is that strip malls with greater proportional parking area have more inefficient land usage. Damped because of a large range of values.

\* *BIZ\_SALES/LAND\_VALUE\_PCL*: Business sales per parcel value, both in dollars. A measure of the economic productivity of the strip mall relative to the value of the land, which should scale approximately with how lucrative the retail space is.

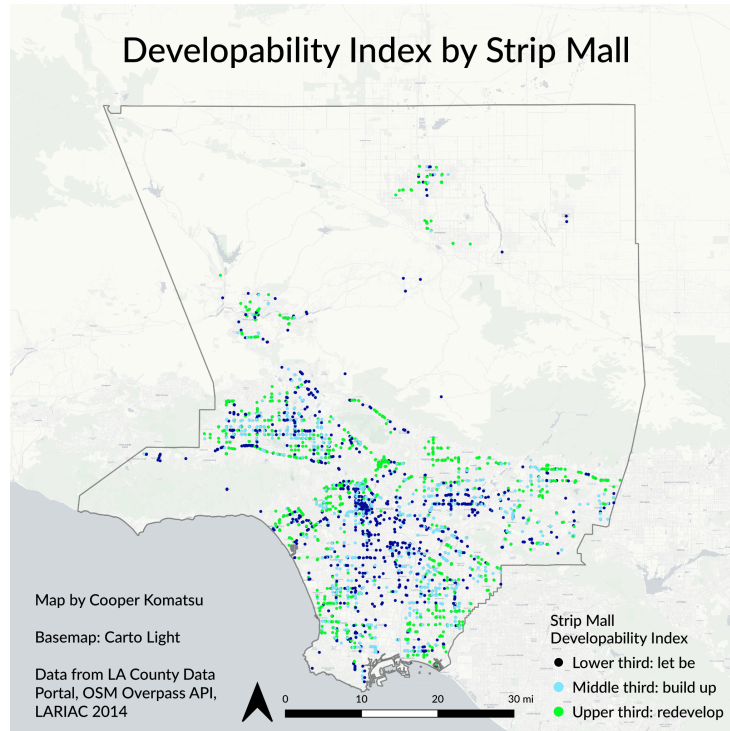
\* *(1/SM\_REL)*<sup>2</sup> : The inverse of strip mall reliance in the tract. Squared to increase its salience.

\* *(INC\_COMPR)*: A compromise value between median and individual income in the tract.

Higher-income neighborhoods will be better able to handle the loss of strip mall retail.

\* *(ENG\_FLU\_PCT)*: Proportion of residents of the tract who speak English "very well." Linguistic minorities may rely on strip mall businesses for the linguistic community.

\* *(WHT\_PCT)*: In Los Angeles, as in all American cities, Whiteness affords societal privilege that is hard to capture in other metrics. Does not include SWANA people.



*Figure 15: Strip Mall Developability Index for all LA Strip Mall*

From here, policy can be made based on the values of the Developability Index. For the strip malls in the upper third of DI values, protecting them is likely not productive if there is redevelopment interest—Los Angeles’ dire housing need must eventually be satisfied somewhere, and these are potentially good places to keep working toward meeting that housing need for Angelenos. For the strip malls in the middle third, it should be less harmful to build these strip malls up while keeping first-floor retail. Thus, governments can take advantage of the wording in AB2011 and mandate that first-floor retail be kept in new AB2011 developments. And, for the strip malls in the upper third, governments can recommend that those strip malls be kept intact and let them function as is. With higher strip mall reliance, greater social vulnerability, and more favorable architectural and financial states, they should continue to serve the roles that they serve. Of course, these conclusions should be mutable according to site-specific conditions—data is never perfect in its scope—but this method provides a practical way to be more discerning and culturally sensitive as to which strip malls can be redeveloped.

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