

Rental Exploitation, Race, and Poverty: Evidence from San Diego, CA
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Introduction

Inequality in the United States is structural and widespread. Perhaps nowhere is that more visible than in housing markets. The segregation of rich and poor by geography, quality of services, and access to markets has been enforced by custom, law, and private action since the first settlements of the American continent. This study examines one measure of spatial inequality: the rate of rental exploitation, which represents a tenant who is overcharged compared to the market value of the property.

Utilizing proprietary parcel-level data, this analysis examines the relationship between rental exploitation and multiple overlapping systems of inequality, including income, race, and nativity, in San Diego County, California. A spatial analysis is conducted to estimate both the regional and local determinants of rental exploitation.

Ultimately, this study finds that rental exploitation is concentrated in areas with low incomes, as well as areas with a high proportion of residents of Hispanic/Latino origin. Policymakers and activists are urged to consider the systems and structures that led to this state of affairs, and to accurately identify landlords as an opponent in the struggle for fair housing.

Background

Inequality and Exploitation

Traditional explanations of inequality, both personal and structural, draw an implicit connection between poor people and poor places. There is, however, a tradition of sociological thought which views inequality as the product of a relationship between rich and poor, and poor places as sites of transfers from one to the other. Sociologist Charles Tilly argues in *Identities, Boundaries and Social Ties* that “inequality emerges from asymmetrical social interactions in which advantages accumulate on one side or the other, fortified by construction of social categories that justify and sustain unequal advantage.”¹

In the context of the tenant-landlord relationship, we can understand inequality as arising from the inherently exploitative nature of said relationship. Small advantages in capital formation rates, access to credit, and legal protection accumulate over decades to create spatially-concentrated inequalities. We argue that the intrinsic nature of the capital/labor dynamic give rise to just such inequalities.

In the Marxian understanding of capitalism, value is created through socially-necessary labor time. Labor is the ultimate, and only, source of value. Thus, if value (crystallized into the form of money) is transferred by any other mechanism, it represents an illegitimate and exploitative exchange.

Exploitation occurs when some person or group closes off access to a resource in order to make money off of it. This occurred historically in what is now the United Kingdom, where land

¹ Charles Tilly, *Identities, Boundaries and Social Ties* (Routledge, 2015), <https://doi.org/10.4324/9781315634050>, 100.

which had previously been held and farmed in common was enclosed and sold to private landholders. This had several implications, most importantly that peasants who had previously had a direct relationship to capital in the form of land were instead forced into a wage-labour relationship with the landowners, who provided no value to the process despite receiving the profits from the land. Marx termed this process primitive accumulation, and modern thinkers in the Marxian tradition describe the landlord-tenant relationship in the same terms.

The figure of the landlord is someone who owns a property and charges money in exchange for access to it while adding no actual value to the transaction. While there are productive activities involved in the rental property industry, such as maintenance, property management, and real estate, a landlord need not hold any of these roles in order to be a landlord. Thus, a landlord's profit comes not as a result of their own productive labor, but out of closing off access to a necessary resource - a classic example of exploitation.

Crucially, exploitation is a continuous process that relies on and creates the conditions for its own success. According to Wright (1997), exploitation "does not merely define a set of statuses and social actors, but a pattern of ongoing interactions structured by a set of social relations, relations which mutually bind the exploiter and the exploited together. This dependency of the exploiter on the exploited gives the exploited a certain form of power, since human beings always retain at least some minimal control over their own expenditure of effort."² Because exploitation can be resisted, it must be maintained through institutions. Police violence and the threat (or fact) of litigation represent two among many means of maintaining exploitation in the landlord-tenant relationship.

Renter exploitation is thus inextricably bound up in the overlapping systems of injustice that characterize the urban history of the United States. It is for this reason that Desmond and Wilmers find that:

"The institutionalization of the black ghetto at the beginning of the 20th century increased the exploitative possibilities of landed capital. As the black population in northern cities grew, real estate developers saw an opportunity to make handsome profits by buying up properties on the edges of the ghetto and slicing them into flats. Legal segregation meant that ghetto landlords had a captive tenant base and "had nothing to gain by improving [their] old houses." The rise of the dual housing market (one white, one black) allowed landlords to charge blacks higher rents for worse housing. In postwar Chicago, blacks paid 15%–50% more in rent than whites living in similar accommodations. As late as 1960, the median monthly rent in Detroit was higher for blacks than for whites."³

We would therefore expect to see racial effects in the rate of rental exploitation.

Immigrants are likewise exploited by rental markets. Immigrants tend to cluster in particular neighborhoods due to familial ties and access to specific cultural or linguistic

² Erik Olin Wright, *Class Counts: Comparative Studies in Class Analysis* (Cambridge: Cambridge University Press, 1997).

³ Desmond and Wilmers, "Do the Poor Pay More for Housing?" 1094-95

resources. This creates captive markets for landlords who can charge high prices and offer dilapidated housing, safe in the knowledge that they will not be outcompeted.

Exploitation Rate

Exploitation can be compared directly to the counterfactual of property ownership. By this criterion, every renter is exploited. More suitable for the purposes of this analysis, however, is a numeric representation of exploitation, which will enable spatial analyses to be performed.

If exploitation refers to being paid less than the value of what a person produces, the same logic can be understood in the housing market as paying more than the value of what one receives. Following Desmond and Wilmers, then, rental exploitation (y) can be understood as the ratio of annual rent (r) to the property value (v).

$$y = \frac{r}{v}$$

Exploitation can also be thought of as the inverse of the amount of rent payments required to purchase a property outright; a property with an exploitation rate of 0.25 would pay the equivalent of the property's entire value over four years of rent.

Literature Review

Desmond and Wilmers' 2019 study "Do the Poor Pay More for Housing? Exploitation, Profit, and Risk in Rental Markets"⁴ conducted pioneering research in this field concerning the relationship between exploitation and poverty in the tenant-landlord relationship. Their study uses publicly-unavailable microdata combined with surveys of landlords to conduct a parcel-level analysis of exploitation rates in Milwaukee, Wisconsin. They find that exploitation rates are positively correlated with poverty levels, both in Milwaukee and across the country, and further that the higher rents combine with low tax burdens and fixed costs, resulting in higher rates of profit for landlords in poor neighborhoods compared to wealthy neighborhoods. This paper is the first and only study of its kind, and the forthcoming analysis will partially serve as an attempt to replicate its conclusions. In addition, this analysis will go beyond Desmond and Wilmers in examining how overlapping axes of privilege relate to observed exploitation rates.

⁴ Matthew Desmond and Nathan Wilmers, "Do the Poor Pay More for Housing? Exploitation, Profit, and Risk in Rental Markets," *American Journal of Sociology* 124, no. 4 (January 1, 2019): <https://doi.org/10.1086/701697>.

Methods

Data Sources: ACS and Landgrid Parcel Data

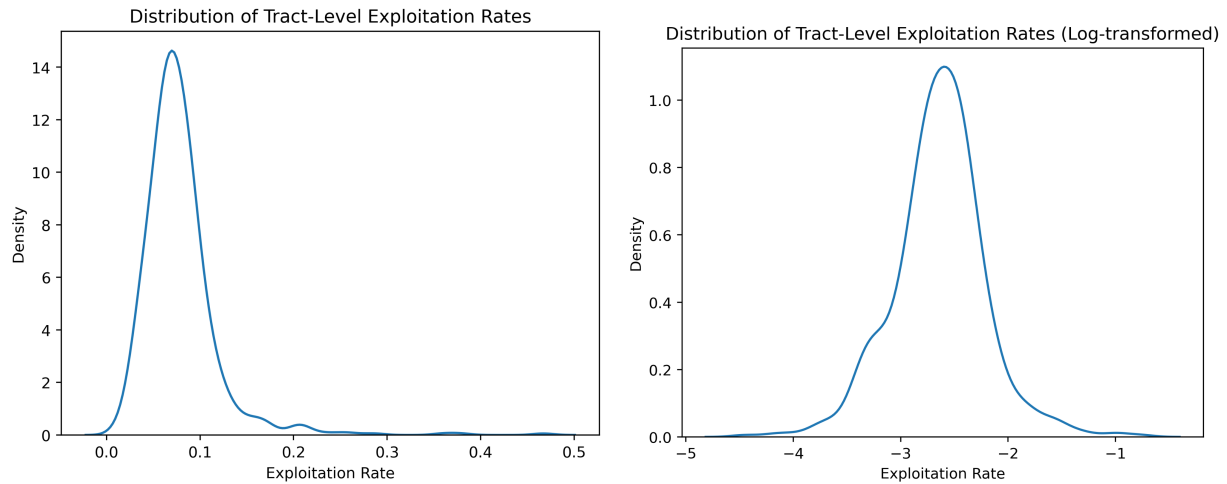
This study uses tract-level data from the American Communities Survey 2019 5-year estimates. Census tracts are the smallest unit of analysis within which observations can claim reasonable statistical accuracy.⁵ From the ACS data, we calculate rent burden as the ratio of renter households spending over 30% of their income on rent to the total number of renter households. Poverty rates are calculated for only renter households in order to account for neighborhoods with significant differences in poverty by tenure. This is in line with theory: nationwide, homeowners are on average 89 times wealthier than renters.⁶ The proportion of foreign-born residents and the proportion of residents identifying as Hispanic or Latino reflect the entire population of the tract.

This study also uses a proprietary dataset of parcel-level characteristics supplied by Landgrid, a private data source. Parcel data comes from the San Diego County Assessor/Recorder/County Clerk and is provided as-is by Landgrid. The data contain the addresses and coordinates of the parcels, the addresses of the owners of the parcels, and other information such as the parcel's assessed value. In order to determine the gross rent paid per parcel, the owner addresses were geocoded and those that were different from the parcel addresses were coded as rental properties. The geocoded rental parcels were then assigned the median rent of the tract in which they were located, based on the above ACS data. Finally, the gross rent paid was divided by the total number of parcels in each tract, resulting in a measure of gross rent paid per parcel.

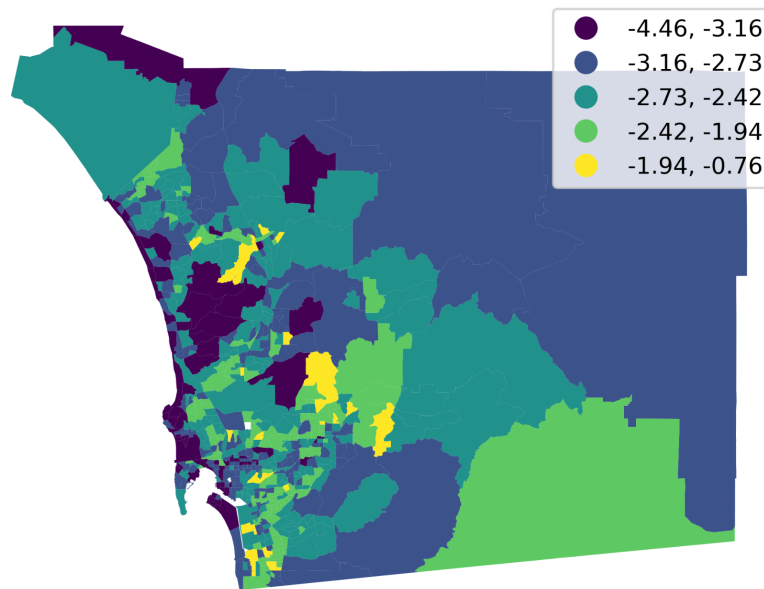
The dependent variable, renter exploitation, was likewise created using the Landgrid dataset. Parcels were filtered to include only those which were not owner-occupied, and the annualized median rent was assigned at the tract level. Finally, the median rent was divided by the median parcel value to obtain a tract-level measurement of renter exploitation. In the analysis, renter exploitation was log-transformed in order to obtain better fit. Missing values were spatially interpolated using a linear distance-based weights matrix.

⁵ Heather Macdonald, "The American Community Survey: Warmer (More Current), but Fuzzier (Less Precise) than the Decennial Census," *Journal of the American Planning Association* 72, no. 4 (December 31, 2006): 491–503, <https://doi.org/10.1080/01944360608976768>.

⁶ US Census Bureau, "Gaps in the Wealth of Americans by Household Type in 2017," The United States Census Bureau, accessed May 3, 2021, <https://www.census.gov/library/stories/2020/11/gaps-in-wealth-of-americans-by-household-type-in-2017.html>.



Rental Exploitation Rate (Log-Transformed) in San Diego County, CA



Our analysis examines the effect of gross outgoing rent, renter poverty, foreign-born population, median income, Hispanic/Latino origin, and rent burden on renter exploitation. Following Desmond and Wilmers, it is expected that renter exploitation will be greater in areas of higher poverty and in immigrant neighborhoods where a large proportion of the population is foreign-born.⁷ The following table shows the descriptive statistics for the variables used in the model:

⁷ Matthew Desmond and Nathan Wilmers, "Do the Poor Pay More for Housing?" 1090–1124. <https://doi.org/10.1086/701697>.

Variable	Count	Mean	σ	Min	25%	50%	75%	Max
Exploitation Rate (Log-Transformed)	620	-2.64	0.43	-4.46	-2.86	-2.63	-2.41	-0.76
Gross Rent Per Parcel (\$1000 USD)	620	0.56	0.3	0	0.37	0.5	0.67	2.84
Renter Poverty Rate	620	0.13	0.11	0	0.04	0.11	0.2	0.6
Percent Foreign-Born	620	0.23	0.11	0.03	0.14	0.21	0.31	0.57
Median Income (\$1000 USD)	620	83.68	33.22	27	59.64	80.04	101.94	229.58
Percent Hispanic/Latino	620	0.34	0.23	0.04	0.15	0.26	0.49	0.97
Percent Rent Burdened	620	0.53	0.14	0	0.45	0.53	0.62	1

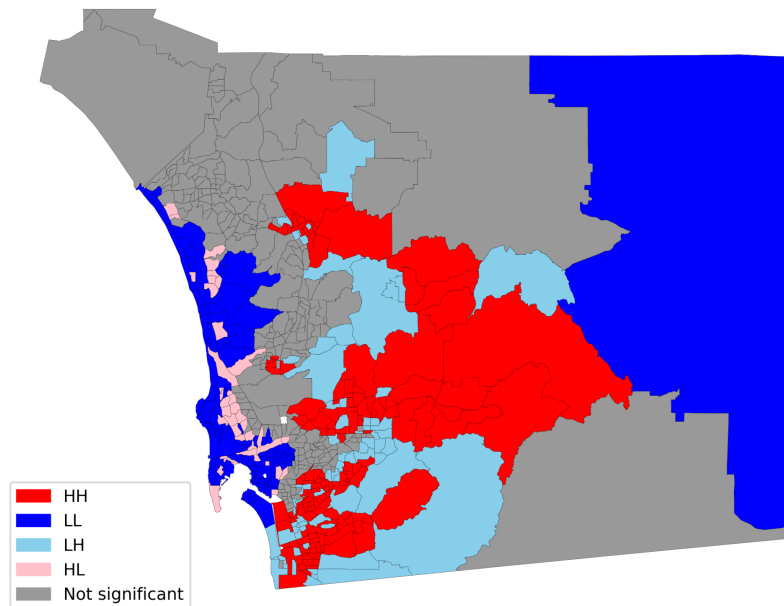
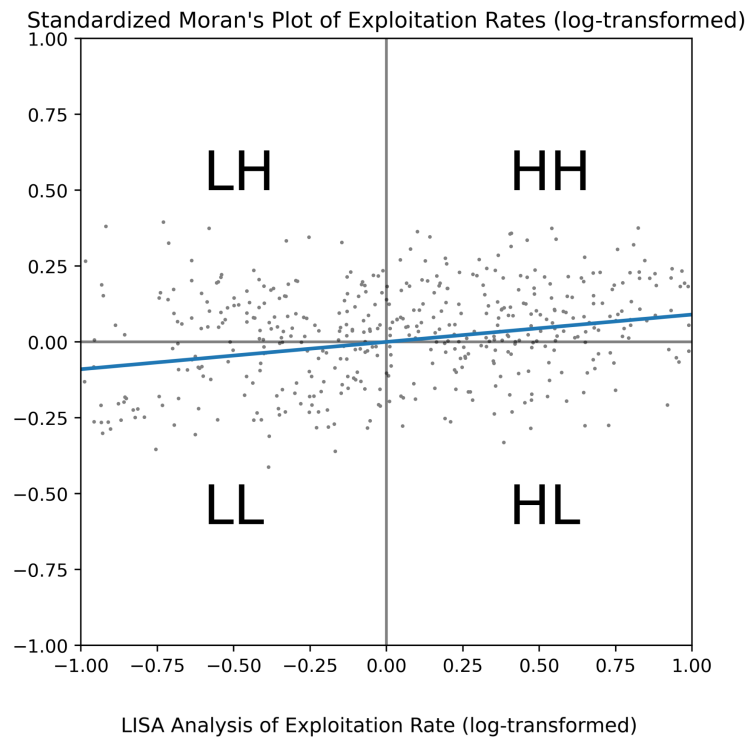
Exploratory Spatial Data Analysis

An exploratory spatial data analysis was conducted to determine whether there were significant spatial effects in the dataset. In order to determine the best choice of spatial weights matrix, four candidates were chosen: linear distance-band, exponential distance-band (gravity model), queen contiguity, and k-nearest neighbors (k=6). The linear distance-band weights matrix was chosen based on its favorable Akaike Information Criterion score in each model.

Method	AIC
Distance-band (linear)	603.071
Distance-band (gravity)	542.972
Queen-contiguity	553.960
k-nearest neighbors (k=6)	546.464

The spatial weights matrix was used to create a measure of spatial lag for renter exploitation, and Moran's I was calculated at $I = 0.090$ ($p = 0.001$), indicating a positive significant spatial correlation. Moran's I is a measure of global spatial autocorrelation where positive, statistically significant values mean that globally, like values tend to cluster with other like values to a degree that is statistically unlikely to be random. However, Moran's I makes no claim as to the local distribution of these values.

In order to determine where values tend to cluster, a LISA analysis was conducted using the same spatial weights matrix. The Local Indicators of Spatial Association provides a graphic depiction of the clustering of values. A standardized Moran's chart of observed values against spatially-lagged values was created and mapped.



The map demonstrates that low values tend to concentrate near the coasts, while high values are concentrated in the central and southern parts of the county.

Models

The analysis proceeds in three stages. We first construct a non-spatial OLS regression model as a baseline. Next, we construct a spatial autoregressive model as an alternative. The specification of the SAR model is based on a Lagrange Multiplier test which suggests the existence of spatial dependence in the model's error term. Finally, we employ a geographically weighted regression (GWR) model. A Breusch-Pagan test, which measures evenness in the distribution of error terms based on the values of the model's independent variables, justifies the use of the GWR model by finding that the model's error terms are not evenly distributed. PySAL and Matplotlib are used to construct the models and visualizations respectively.

Results

The following table displays the results of each model predicting the causes of renter exploitation. All values have been exponentiated, so the displayed values are semi-elasticities. That means that the coefficients reflect the percentage increase or decrease in the renter exploitation rate as a result of a one-unit increase in the listed independent variables. For the independent variables which are percentages, "one unit" refers to a single *percentage-point* increase, e.g., proportion of renters in poverty increasing from 21% to 22%. This is distinct from a *percent increase* reflected in the response variable.

Variables	OLS Parameters	SAR Parameters	Median GWR Parameter (min, max)
Gross rent per parcel (\$1000s USD)	-30.228 (.000)***	-3.892 (.507)	-23.581 (-39.145, 16.607)
Percent renters in poverty	-0.424 (.003)**	-0.396 (.003)**	-0.365 (-0.811, 0.604)
Percent foreign-born	0.349 (.097)*	-0.146 (.479)	0.620 (-0.625, 5.343)
Median income (\$1000s USD)	-0.153 (.025)**	-0.179 (.013)**	-0.028 (-0.636, 0.829)
Percent Hispanic/Latino	0.181 (.129)	0.335 (.052)**	0.038 (-0.400, 0.726)
Percent rent-burdened	0.373 (.018)**	0.206 (.123)	0.600 (-0.165, 1.856)
Constant	-92.055 (.000)***	-92.730 (.000)***	-93.305 (-98.001, -82.230)
SAR parameter estimate λ	-	0.900 (.000)***	-
Akaike Information Criterion (AIC)	652.303	542.973	567.664

Adjusted R ²	0.115	0.068 ⁸	0.267
Moran's I of residuals	0.090 (.001)***	0.013 (.109)	-

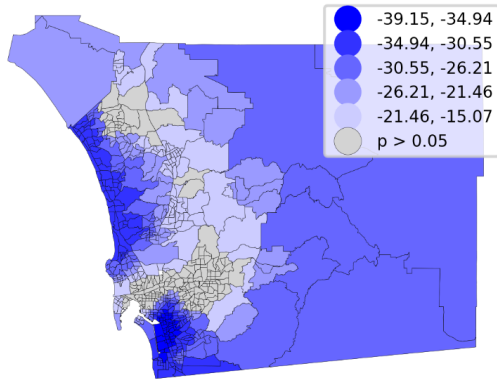
The OLS results in the first column show a negative and significant relationship between exploitation rate and median income. There is also, unexpectedly, a negative and significant relationship between exploitation rate and renter poverty. This would appear to contradict the findings of Desmond and Wilmers as well as the theory on which their findings are based. It may, therefore, be the product of a methodological error or some as-yet-undiscovered spatial effect.

The second column displays the results of the SAR model, using a gravity-based distance-band weights matrix. The results of the SAR model are similar to those of the OLS model, with a negative and significant relationship between median income and renter poverty. However, the gross rent term loses significance, suggesting that its significance in the OLS model may have been a result of undesirable spatial effects. The proportion of residents who are foreign-born also becomes insignificant, but with a negative instead of a positive coefficient. An improvement over the OLS model is reflected in the smaller Akaike Information Criterion value. Additionally, Moran's I is no longer significant for the residuals, suggesting that any spatial autocorrelation issues have been resolved.

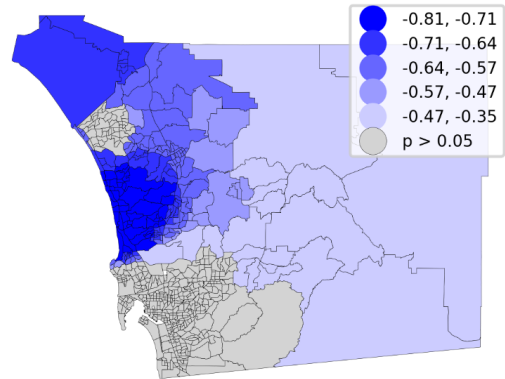
The final column displays the results from the geographically-weighted regression. The GWR reports local coefficient values for each tract, therefore the table shows only the median, minimum, and maximum value. The GWR, which is also mapped in the following figure, reveals the source of the seeming discrepancy between theory and observed reality in the poverty rate - poverty rate is only significant in coastal North County, a wealthy area with high property values. Because the formula for exploitation rates has property value as a denominator, outlier values can overwhelm the numerator and create low results. In this case, it is likely that the low rate of poverty combined with the high average property values to create a coefficient that had little to no explanatory power outside of the context of a very specific set of neighborhoods. GWR models are prone to errors in the coefficients if the independent variables do not have high predictive power, which likely explains the significant variation seen in the coefficient estimates. In addition, the local coefficient values for median income have decreased significantly in magnitude compared to the other two models, and lie on both sides of zero.

⁸ Pseudo R² is used for SAR models.

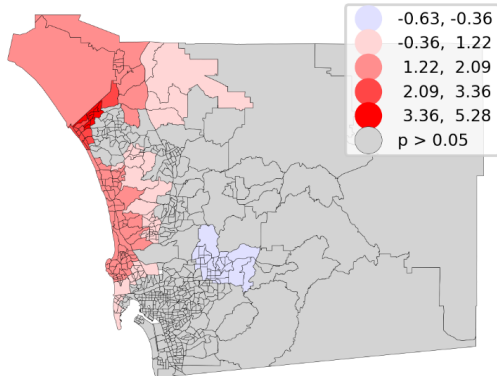
Gross Rent Per Parcel (\$1000 USD)



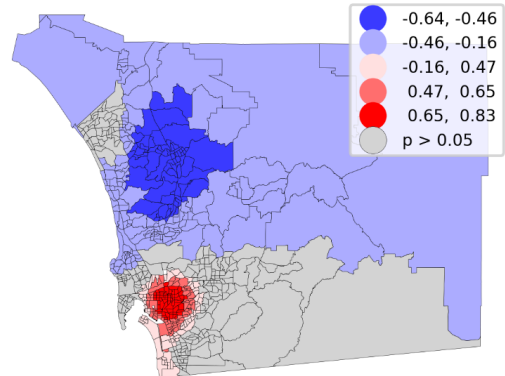
Renter Poverty Rate



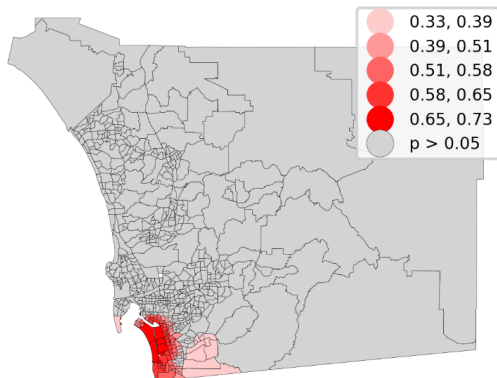
Percent Foreign-Born



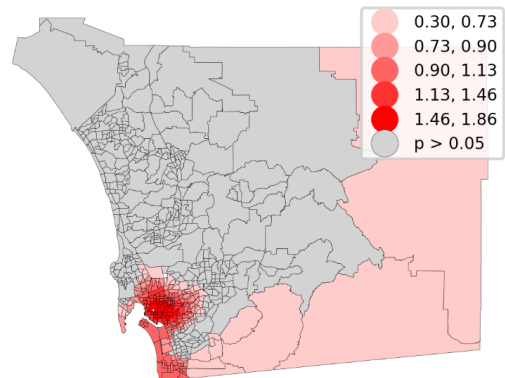
Median Income (\$1000 USD)



Percent Hispanic/Latino



Percent Rent Burdened

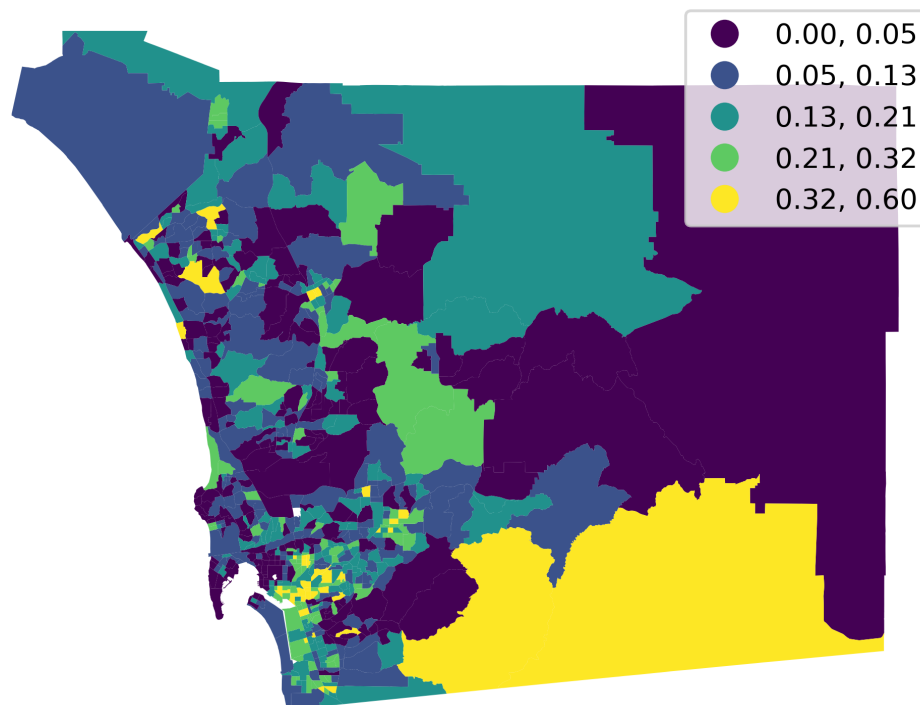


Discussion

This article aims to advance the understanding of capitalist exploitation as it intersects with other forms of oppression in urban neighborhoods through an analysis of the relationships between rental exploitation and demographics, nativity, and poverty rates in San Diego. We draw several important conclusions that provide direction for future research.

First, the poverty rate among renters is not positively correlated with rental exploitation. This holds true both globally and locally. This finding runs contrary to theory and prior results. If we assume the results accurately reflect reality, this serves to discredit the social relations theory of exploitation. If exploitation rates are actually higher where poverty is low, we can infer that renters choose to enter into exploitative contracts willingly because they judge higher rents to be worth the benefits that come with living in a particular location. It is also possible that both theories are true simultaneously: renters in high-poverty areas face high exploitation rates, as do renters in low-poverty areas, with middle-income areas falling closer to the median. It is likely that more than anything else, this finding reflects an error in the analysis or in the data collection. In the global analyses, low-poverty tracts likely overwhelmed high-poverty tracts in generating the global coefficients. In the GWR model, which is supposed to correct for varying spatial effects, the high-poverty tracts were not locally statistically significant. Later work should stratify the rental market by income and conduct separate analyses in order to determine the true cause of this apparent contradiction.

Poverty Rate for Renters, San Diego County, CA



Second, despite the negative correlation between poverty and exploitation, there is also a negative correlation between income and exploitation. As income is the sole determinant of poverty as measured by the Census Bureau, this would seem to be a contradiction in terms - how can high poverty cause low exploitation rates, but low incomes cause high exploitation rates? There are several possible explanations. First, poverty rates only measure threshold values - whether a household makes above or below a particular amount of money. This obscures potential differences between poverty levels, or between people who are part of the working poor but not enough to officially qualify as impoverished. Second, there could be a methodological or domain error in the calculation of poverty rates - since cost of living is significantly higher in San Diego County than in the rest of the United States, the use of the federal poverty level is not particularly illustrative in a strictly regional context. Either way, this finding aligns with established theory and precedent.

Third, there are neighborhoods that have a high rate of rental exploitation for reasons other than poverty and nativity. While median income is negatively correlated with exploitation globally, certain neighborhoods north of downtown San Diego display strong positive correlations between rental exploitation and income. These neighborhoods are among the only places in San Diego County that contain desirable urban amenities such as transit access and walkability. It may be that the relative scarcity of these amenities creates a similar “captive audience” among high-income urban dwellers as was reported above with immigrants. These residents would be willing to tolerate unimproved properties and high relative rents in exchange for access to amenities that are unavailable in the rest of the city.

Fourth, recent immigration appears to have little to no correlation with exploitation rates. After correcting for nuisance spatial autocorrelation, nativity had no significant effect on exploitation rate. However, Hispanic/Latino origin was positively and significantly correlated with exploitation, suggesting that the clustering of immigration may in fact provide an easy target for landlords willing to charge higher-than-market prices and invest little to no money in property upkeep and improvement.

The conclusions of this analysis will be of interest to policymakers and activists. Policymakers should be aware that the cycles of disinvestment that lay the groundwork for gentrification have severe consequences beyond lack of amenities; they also result in disproportionately large wealth transfers from people who have very little to give. Housing activists should use this knowledge to further a materialist understanding of the causes of housing inequality, and keep in mind that the landlords who perpetrate the systemic disinvestment in certain urban neighborhoods have names and addresses.