

**Green Gentrification:
A Study of Revitalized Parks in Los Angeles**

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Abstract:

Green gentrification describes the occurrence or exacerbation of gentrification in vulnerable communities where green infrastructure, such as parks, have been implemented or revitalized. The purpose of this study was to test theories of green gentrification in the city of Los Angeles, with particular scrutiny on Proposition O that granted approximately \$105 million for the revitalization of community parks (Hansen Dam Park, Echo Park, and South Los Angeles Wetlands Park). This study examined the following research questions: **What is the correlation between the revitalization of green space and gentrification?** And **What are community perceptions of sustainability discourse and how green infrastructure affects their community?** A Difference in Differences regression was conducted to supplement the 8 community leader interviews collected on perceptions of green space impacts and sustainable discourse. Four main findings were found:

- Parks provided a valuable space for a healthy lifestyle and community engagement.
- Issues of maintenance, accessibility and safety were concerns that may deter park-goers.
- Residents hoped local municipalities would address community concerns but perceptions of neglect and injustice had generated feelings of apprehension towards public investment.
- Perceptions differ among changemakers in regards to sustainable discourse.

This study constructed the following recommendations:

- Establish an accessible and digestible database for information on gentrification related research and information.
- Public investment policy should include operation and maintenance long-term planning.
- Gentrification safeguards should be integrated into the Los Angeles Community Plans.
- Grant more public investment money to community organizations.

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I. Introduction

specifically in disadvantaged communities. Studies have proven that a green space injustice is not rectified solely with the implementation or revitalization of green infrastructure. Rather, in some cases, green infrastructure implementation or revitalization has had negative implications to the existing community. Academic studies highlight a consequential trend to green space implementation or revitalization known as green gentrification. Green gentrification, also termed environmental or ecological gentrification, refers to the displacement that occurs with the implementation or revitalization of green infrastructure. Similar to the injustice of lacking green space, this phenomenon disproportionately affects historically vulnerable communities such as communities of color and communities of low-income. Ironically, these communities potentially deal with a catch-22 scenario: live in neighborhoods void of adequate green space and the related benefits or potentially face the pressures of displacement as housing values rise due to the close proximity of a desirable green space.

The existing literature, described in more detail in the following section, provides numerous case studies of green gentrification nationally and internationally. These case studies analyze the historical and political context of the neighborhood and the green infrastructure project with various methods that attempt to uncover the “paradox” of urban green spaces. The purpose of this research paper is to add to the growing literature on green gentrification through an examination of Proposition O parks in Los Angeles. With the emerging popularity of green infrastructure policy, as evident by the passage of Proposition O and Measure W in Los Angeles, it is important to explore the potential relationship between publicly funded green infrastructure projects and green gentrification. Additionally, given Proposition O political context, it was determined to be a significant policy initiative to m

preference... Consumer preference and demand for gentrified housing can be created after all, and this is precisely what happened in Society Hill

There is a multitude of contributors to the process of gentrification and not a singular entity can alone instigate gentrification. However, Smith pointed out that the government's role in reinvestment and rehabilitation of urban sites has a greater impact on the process of gentrification.

Hackworth and Smith (2000) similarly argued that local government and public investment play an integral role to the process of gentrification, particularly in its current phase. The authors analyzed three gentrified New York neighborhoods to uncover the reasons for governmental intervention: Clinton, Long Island City, and Down Under the Manhattan Bridge Overpass (DUMBO). The neighborhoods chosen had avoided waves of gentrification in the 1980s but, during the 2000s, the most current wave of heightened gentrification known as the third wave, each neighborhood has been subjected to government reinvestment (Hackworth and Smith 2000). The authors found that governmental entities have transitioned from intervening in gentrification agendas to increasingly becoming more involved in the process of urban revitalization. In each neighborhood, the increased degree of governmental involvement was enough to override strong community opposition, land-use obstacles and other legislative procedures that were designed to offset gentrification. Ultimately, governmental controls, whether it be at the federal, state, or local level, have the most influence over the process and rate of gentrification. "

It goes to the heart of the matter"

Within the field of gentrification research, an emerging area of scrutiny has focused on gentrification as it relates to investments in green infrastructure. The dominant environmental

Although green infrastructure is built by and for humans, it ‘mimics’ the design and functionality of nature to mitigate the negative externalities of urbanity. Unlike grey infrastructure, projects built primarily from concrete and or steel, green infrastructure “has the potential to provide greater triple bottom line benefits - environmental, social, and economic” (U.S. EPA 2014). GI also mitigates and filtrates urban runoff, contaminated water populated from chemicals within streets, lawns, and other non- point sources thus, reducing the amount of toxicant exposure to people and pollution in bodies of water. Additionally, the incorporation of green infrastructure within urban spaces reduce the heat island effect as well as the increasing frequency of heat waves, particular concerns that apply to the city of Los Angeles. Another positive public health factor includes improvement to physical and mental health due to close proximity to green space and decrease in asthma rates due to an enhancement in air quality (i.e. Jennings 2017). The various benefits and positive attributes that come with green infrastructure implementation prove GI to be a popular method in replacing antiquated and ineffective grey infrastructure systems.

On the other hand, proximity of green infrastructure projects has been shown to correlate with gentrification and displacement pressures. To expand on the concept of green gentrification, Wolch et al. coined the term “the urban green space paradox” to describe the process in which displacement occurs. In their review of studies assessing the relationship between urban green spaces and environmental justice, the authors found that community improvement, due to the increase of green spaces, resulted in an increase of neighborhood desirability and housing costs (Wolch et al. 2014). A rise in housing costs then could then lead to displacement of existing

Thus, green gentrification “problematizes conventional planning approaches to using public green spaces as tools facilitating social reform and public health objectives” (Dooling 2009).

Thus, more robust research and political dialogue of green gentrification creates the potential to connect the fundamentals of urban planning with environmental justice.

In a similar fashion, Checker explored tensions between green spaces and gentrification in the historically underserved community of Harlem, New York. Harlem had historically been a site of Manhattan’s environmental burdens with “far fewer environmental amenities than other borough neighborhoods” (Checker 2011). The demographics of the community is predominantly people of color however, “Harlem’s gentrification is no exception to this pattern of simultaneous greening and whitening” (Checker 2011). Through the usage of ethnographic research, the author found the revitalization of green spaces in Harlem were not serving the existing community. For instance, Harlem residents had asked the municipal government to improve the local parks for years before a plan was finally constructed to improve and expand, coincidentally, during a time when luxury condos were being developed adjacent to the parks. Thus, signifying that the park

should be placed on the implications green infrastructure projects may have on the surrounding neighborhood rather than the economic potentials.

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A synthesis of the literature showed that the lexicon of sustainability has become embedded in urban development dialogue since at least the 1990s (i.e. Campbell 1996 Gunder 2006 Immergluck and Balan 2018). It is argued that sustainable development furthers not only sustainability but also social equity however, critics pointed out that sustainable development often focused more on integrating ecological elements with economic development and, essentially, undermined the social component (i.e. Gunder 2006 Jonas and While 2007 Quastel 2009 Immergluck ad Balan 2018 Kim 2018). Some scholars have questioned whether sustainable objectives integrated in urban development plans acts as a mechanism to hide the ultimate outcome that is the revalorization of underutilized urban space or, in other words, displacement from the consumption of undervalued land (Immergluck and Balan 2018).

Scholars further critiqued sustainable development, arguing that developers are “operating under the seemingly a-political rubric of sustainability” (ie Checker 2011, Gould and Lewis 2012, Kogan 2018, Immergluck and Balan 2018). Simply put, the rhetoric of sustainability is perceived as neutral from any political agenda. Alternatively

desires were not reflected in city plans is that “despite input from WE ACT and other advisory board members, the final plan relied far more on input from a high- end consulting firm than from its advisory board” (Checker 2011). Thus, proving further the false notion of sustainable development efforts as a-political.

Similar to Harlem, communities in Seattle did not see an expansion of bike infrastructure, another form of sustainable development, as a public good despite the city’s a model bicycling city (Lugo 2015). Gould and Lewis (2012) argued that the original conception for the revitalization of Prospect Park “emer

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In order to mitigate the results of green gentrification, scholars explored a ‘just green enough’ strategy. ‘Just green enough’ refers to the design and implementation of green infrastructure projects that “are explicitly shaped by community concerns, needs, and desires rather than either conventional urban design formulae or ecological restoration approaches” (Wolch et al. 2014). When green infrastructure is centered on the needs and culture of existing community, that community is able to reap the full benefits of GI access as well as strengthen their stakeholderhood in the neighborhood. For instance, ‘just green enough strategies’ in Greenpoint allowed for the clean up of industrial pollution and other cominants harming the well-being of the neighborhood yet the historically industrial, working class make-up of the neighborhood was able to remain intact (Wolch et al. 2014). Thus, proving a neighborhood is able to address the environmental injustice that plagues them without drastically changing and displacing the existing community.

The activists in Greenpoint recognized the historical injustices that made the community undesirable and polluted, demanding that the remediation of the injustices be directed towards those who suffered through it, not for the gentrifiers (Curran and Hamilton 2012). This strategy is effective in part due to the placemaker politics the existing community members employ. Stakeholders elevate these histories, all that is good and bad, to “re- politicize the formation of place” and strengthen their hold on their neighborhood throughed rooted histories. As exemplified in the case of Greenpoint, sometimes gentrifiers can assist placemaker politics by adopting the histories and activism of their new neighborhood, though it is hard to discern if this appropriation of place is helpful or hurtful to the existing community.

Kim (2018) explained placemaker politics as the “construction of a collective identity grounded in histories and memories of neighborhood transformation”, that is strategically utilized to challenge both environmental injustice and the sustainable “discourse that present gentrification as natural outcome of “green” urban policies” (Kim 2018). In “*Dt kpi 'qp'ij g' [wrrkgu'cpf 'ij g'I wrrkgu#I tggp'I gpvHkccvkqp.'Gpxkqpo gpwriLmwkeg.'cpf 'ij g'Rqrkku'qhRrceg' kp'Htqi vgy p.'NCCb'* Kim (2018) studied the convergence of placemaker politics and ‘just green enough’ strategies as the revitalization of the L.A. River presents pressure of gentrification on existing neighborhoods. Kim argued that “just green enough does not mean limiting the actual greening of their place” instead, ‘just green enough’ entails transparency and stakeholderhip in the urban green space planning process (Kim 2018).

It is important to note some of the limitations of the ‘just green enough’ strategies. In the green interventions previously described, the community members and activists barred the burden of cleaning up the neighborhood while also securing a place for the existing residents and culture. Not only were they pushing against the force of economic development, but also the interventions of government which, as aforementioned, is more lenient towards developers.

In addition, Kogan (2018) pointed out that “perhaps because displacement is challenging to measure, there are vermMaowardr In M

III. Research Questions

Building upon the foundational green gentrification research discussed in the previous section, this research paper attempted to contribute to the growing literature on green

regression, specifically the Difference in Differences Regression, and semi- structured interviews with community leaders. The quantitative data supplemented the qualitative findings.

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As aforementioned, green infrastructure includes a wide array of projects and this variety is showcased in the types of projects funded by Proposition O. However, the the research and methodology of this study focused on Proposition O park projects. Parks are a visible landmark in a neighborhood and its their recreational nature, a space in which individuals can do play and leisure, that enhances their desirability. Furthermore, parks are generally granted more public investment funds compared to smaller green infrastructure projects. Approximately \$105 million was invested into the three Proposition O park revitalization projects: Echo Park Lake, South L.A. Wetland Park, and Hansen Dam Park. Thus, parks have a greater impact on a given community. "

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A regression analysis using STATA software was conducted to examine the statistical significance of the gentrification indicators over time within the three park revitalization projects. An index of gentrification indicators (Median Household Income, Median Home Value, Median Rent, % with Bachelor's Degree or Higher, and % White) was used to measure gentrification. Data on indicators was collected from the Census Bureau American Finder for the 2000 and 2010 census as well as the American Community Survey 2017 five-year roll up. Data on green infrastructure spatial markers within the City of Los Angeles came from the City's Department of Parks and Recreation Countywide Parks and Open Space GIS shapefile. Proposition O parks were identified from this shapefile. Geographic Information System (GIS)

2013, the approximate year in which all the Proposition O park revitalization projects were completee

It is important to note that the purpose of this research is not to compare neighborhood to neighborhood and park to park. Rather the park sites and their surrounding communities were looked at collectively as a cohort to identify green gentrification trends. Gentrification is a common community concern and the growing green gentrification literature attempts to identify a specific factor that may contribute and or exacerbate gentrification. This study is an attempt to contribute to green gentrification scholarship through the investigation of perceptions surrounding green space and sustainable discourse in Los Angeles.

V. Data Findings and Analysis

An analysis of community perceptions found trends of gentrification based on the concerns and anxieties expressed by them in an interview through the interview.

unquantifiable tensions and concerns that may stronger correlate with signals of green gentrification. An examination of interviews with community leaders found four major findings. The following sections present the qualitative data findings and analysis. "

Key Findings:

Parks provided a valuable space for a healthy lifestyle and community engagement.

Issues of maintenance, accessibility and safety were concerns that may deter park-goers.

Residents hoped local municipalities would address community concerns but perceptions of neglect and injustice had generated feelings of apprehension towards public investment.

Perceptions differ among changemakers in regards to sustainable discourse.

1. Parks provided a valuable space for a healthy lifestyle and community engagement.

Participants were asked about how green space, specifically the projects sites, affected their communities. All participants agreed that green space in communities had positive implications including the improvement of community members' physical and mental health. As one participant from the Zapata- King Neighborhood Council in South Los Angeles put it, green space has a "calming effect", enhancing the livelihood of all residents by providing "a place for people to get healthy". The parks were most often noted as a great space to exercise by all participants. Participants also discussed the importance of having such a space where residents can be active. For instance, Pacoima is a region with minimal gym access thus, in some cases, a park may be the only option for physical exercise. "

The accessibility to a public, open space provided more than just health benefits. Community leaders remarked on how the park allows for residents to interact with their community. Community leaders in South L.A. recounted that the Park was a space in which they

could connect with their constituents. One South L.A. Neighborhood Council member talked about an successful event the Neighborhood Council held at the South L.A. Wetlands Park. Constituents “who were jogging who didn’t know about [the Neighborhood Council], they would stop and get information and lots of nonprofits set up tables” at the park, exemplifying the value of a public venue for community engagement.

In addition, the parks provided a space for community residents to interact with other individuals in the community. A Pacoima community leader noted that the only public place for community members to meet, “have a family BBQ on Sunday or play Volleyball with friends ” is at a park. Thus, underscoring a park’s purpose in enhancing a sense of community. Furthermore, an open public space exposes one to the diversity of the community and greater Los Angeles City. The Neighborhood Council members from Echo Park pointed out that Echo Park has “a wide diversity of patrons enjoying the park”. Both participants emphasized the parks integral role in facilitating a sense of interconnectedness among socially diverse patrons.

Moreover, in park poor areas, such as South L.A. and Pacoima, equitable access to green space proved important to community leaders. A local park allows for marginalized groups who do not have easy access to nature and wildlife to connect with natural ecosystems. For instance, a Pacoima community organizer stated that Hansen Dam park was a great place to expose people to environmentalism. Another community leader in South L.A. point out that the South L.A. Wetlands Park was a positive addition to the community because it allowed “folks of color who don't typically get an opportunity to goe it al\$e

community, but it also contributed to “slowly but progressively changing the perception of South LA.” from non-locals.

2. Issues of maintenance, accessibility and safety were concerns that may deter park-goers. ”

The interviews highlighted there is more to consider than just the positive benefits of green space. Every participant discussed the issue of maintenance as the primary community concern with each park. For instance, Echo Park Lake is beginning to degrade due the replacement of the original maintenance company, the Pond Company. According to the president of the Echo Park Neighborhood Council, “the Lake, which was an \$84 million dollar project from public money, was starting to very quickly decline because the maintenance was not being done on it”. Similarly, at the South L.A. Wetlands Park the poor maintenance and lack of usable facilities contributed to the decline of the park. All South L.A. participants reported there to be no public restrooms for park patrons as well as improper lightening through the park. These park issues created reasons for locals to not utilize the park space, making it harder for marginalized communities to access the benefits of the green space.

Maintenance is also a concern at Hansen Dam Park where the lack thereof “can deter [residents] from accessing these green spaces because they don't feel safe going to the spaces if they're not”, according to an organizer at Pacoima Beautiful. In addition, the homeless population residing at the park contributed to negative perceptions of park safety. As on Pacoima Neighborhood Council member explains that community residents to do not access the entire line of the spaces

Although each park has unique issues, the qualitative data highlighted the complexity of community perceptions surrounding parks. An analysis of community leaders' positive attitudes towards the parks found that the recognition of green space value aligned with the park equity scholarship.

financial gain rather than be concerned with maintaining” the community. It was further argued that private investment and economic development in the area had been prioritized by City officials resulting in gentrification and displacement surrounding Echo Park. Another Echo Park Neighborhood Council member argued that

what L.A. has paid attention to, historically, are developers. And the only people benefiting are the developers. Eli Broad is a developer, the owners of the Lakers, the owners of the Dodgers are all basically developers. And looking at building codes, there is so much by- right developing going on and that’s part of what developers set up for themselves [at City Hall].

Another South L.A. community leader shared similar sentiments and pointed out that “LACMA wanted to know what the community wants, what type of programming, and people complained about all the lights being unkept and the visibility and something of that nature. But a lot of people do want nice stuff in our community”. Thus, highlighting the tensions between community needs, desires and concerns with regards to public investment.

Of the three sites, the communities surrounding the South L.A. Wetlands Park, presented more compelling signals of green gentrification. The Wetlands Park went from an abandoned dirt lot and toxic site to a 9 acre natural ecosystem open to the community. Of all the gentrification indicators, only income was statistically significant in research site of South Los Angeles, with a p-value of 0.012 (Table 3.3 in Appendix B). To put simply, the data concluded that wealthier people have moved into South L.A. since the revitalization of South L.A. Wetlands Park. Additionally, the qualitative data proved there are concerns that change would occur post- park implementation and revitalization. Perceptions of impending neighborhood change stemmed from the emergence of LACMA, L.A. city’s cultural institution that was granted authority to revitalize the abandon warehouse. The communities concerns primarily centered on the changes that will ensue once LACMA comes include the privatization of public space as well as gentrification.

There are two reasons as to why the presence of LACMA potentially signify green gentrification. First, LACMA has made recent attempts to expand across L.A. City and County as evident by art galleries in Vincent Price Park and MacArthur Park. Although green space may not determine the locality of a potential LACMA site, parks do appear to be a recurring theme in LACMA’s salliete projects (New York Times 2019). Thus, reinforcing the notion that parks are

desirable and valuable. Because the South L.A. Wetlands park was a toxic, dirt lot prior to revitalization, one can infer the desirability of the abandoned warehouse was anchored in the revitalized green space on which the warehouse is located.

Second, the extensive governmental investment in a predominantly low-income neighborhood and community of color aligns with gentrification scholars' paradigmatic theory of gentrification. As Smith (1979 & 2000) noted, the government investment is the leading causation of gentrification in the current paradigm. Thus, the city investment that resulted in the South L.A. Wetlands Park in conjunction with the L.A. City Councils' willingness to grant LACMA the abandoned warehouse can be taken as early signs of government induced gentrification. This is further reinforced by the community leaders' perceptions that city officials only pay attention to 'places of value', such as the areas around USC or the new stadium. In addition, the prioritization of governmental investment is exemplified by the fact that a community member's plan for the warehouse was outbid by LACMA's plan, a discovery uncovered in the participant interviews.

These perceptions have prompted community leaders to question for who is the LACMA warehouse turned museum to be built. Despite LACMA's community outreach efforts, the Zapata-King Neighborhood Council members expressed concerns that LACMA's presence will change the community and or privatize the public open space in a way that makes the park no longer accessible to the surrounding marginalized community. Thus, not only is there is a disconnect between community and public institutions, but this disconnect is a potential factor in green gentrification that is not easily measured.

4. Perceptions differ among changemakers in regards to sustainable discourse.

Participants were asked their thoughts in regards to the term revitalization. They were informed about the ongoing debate centered on the term revitalization: whether revitalization described the betterment of communities or synonymous with gentrification. Most participants had a positive connotation with the term revitalization. To them, revitalization was the positive change that occurs within the neighborhood and benefits all community members. Gentrification, on the other hand, was viewed as

As discussed in the Literature Review, green gentrification scholars argued that sustainable discourse, such as the term revitalization, is being appropriated by economic developers and profiteers. Through this appropriation, revitalization is synonymous with gentrification and conflated with displacement. However, as the qualitative data suggested, community leaders do not have the same perceptions and attitudes towards the term revitalization. Most community leaders had positive associations with the concept of revitalization, albeit recognizing its parallel to gentrification. If green gentrification scholars are correct in their assumptions that economic developers are appropriating sustainable discourse and the change in language acts as an additional driver of gentrification, then this shift is important not only for gentrification research but also progressive movements. The division in sustainable discourse perceptions is a potential obstacle that can impede progressive change attempted at the academic and grassroots levels.

VI. Limitations

As with working with any dataset, there are _

methods the city can go about mitigating the negative implications of gentrification including anti-displacement provisions or educational outreach to inform residents of their rights. A current opportunity includes writing strong gentrification safeguard policy language into the the Los Angeles Community Plan. The Community Plan is a piece of city legislation that guides policy-makers in the physical development of communities. This recommendation stemmed from an interview with a Neighborhood Council Member who was hopeful issues of gentrification and displacement would be addressed in the upcoming revisions to the Community Plan. All Community Plans are undergoing updates, with the completion end date scheduled for 2024. Thus, this is an opportune time to implement policy language that would protect existing communities, mitigate the affordable housing crisis, and ease the evident community concerns of gentrification.

It is important to note, gentrification does not occur in the same way to every neighborhood just as for some communities it may never happen. Because of the nonstandardized nature of gentrification, Community Plans and gentrification safeguards should be tailored to the specific needs and concerns of the communities. Language should be flexible enough to accommodate this enigmatic phenomenon while simultaneously have enough teeth to deter the negative implications of gentrification.

4. Grant more public investment money to community organizations.

Based on examples found in the literature review as well as in the interviews, it is perceived to be that policy makers are disconnected and unconcerned with the real desires and needs of local communities. To combat negative perceptions as well as grant investment that directly makes a positive impact for existing communities, an alternative to investing city money

gentrification can happen quickly or in the span of decades. Additionally, a more comprehensive dataset is needed to measure gentrification and its relationship to green space. As aforementioned, the Urban Displacement Project has a robust dataset that constructs the information into a measurable index. Such a dataset and measurement methodology should be further explored and reproduced for more quantifiable causation factors such as proximity to transit or green space. Moreover, this study found that ethnographic methods are best to assess gentrification trends that may occur post-revitalization of green infrastructure, especially information that is captured in quantitative data.

The perceptions of the participants presented important questions for further research: how does the revitalization of green space impact individuals that use that space for shelter and community who is the revitalization of a green space for and how can gentrification and displacement research be expanded to include marginalized communities that do not fit the traditional models of impacted communities. Therefore, research on less measurable gentrification factors, such as homeless population displacement and gentrification anxieties, should continue to be explored and used to reframe the conceptualization of gentrification.

Green gentrification studies are only starting to emerge in Los Angeles. There are numerous cases that could be scrutinized to further assess if and how green gentrification is occurring Los Angeles. Similar to Proposition O, recent green infrastructure and stormwater capture infrastructure initiatives, such as Measure W and Measure A, are beneficial starting points for green gentrification research in Los Angeles. It is imperative that such good intended initiatives are not implemented in a way where it furthers injustice. Thus, green gentrification research is one approach to understanding the unintended consequences of good policies.

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Appendix


Crr gpf k'D<F Hhgt gpeg'kp'F Hhgt gpegu'Tgi t guukqp'Guko c vkqp'T guwn'Vcdrgu''

Table 1: Echo Park

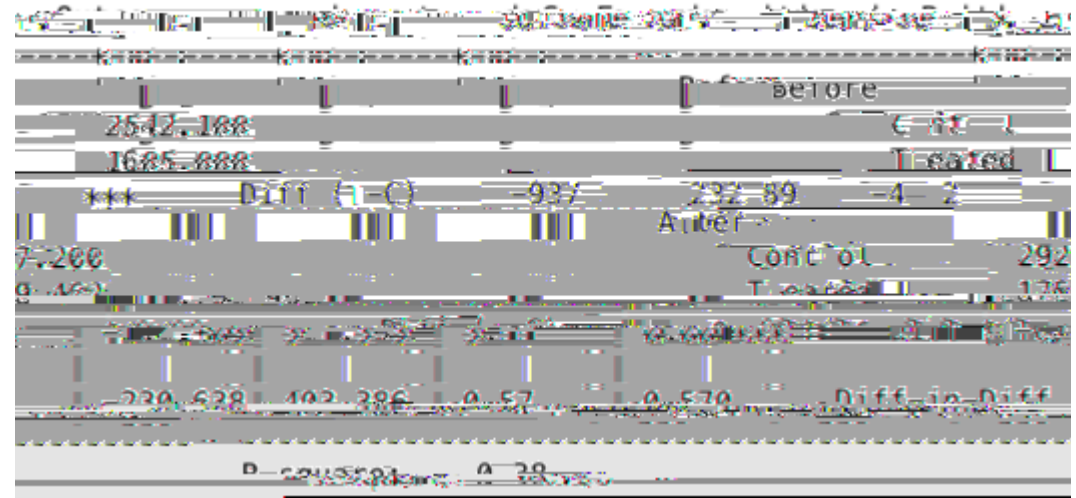
Number of observations in the DIFF IN DIFF 54



Vcdrg'308''Ci g''



Vcdrg'301''Tceg



Vcdrg'405'"Kpeqog'"

Outcome var.	coef	std. err.	[95% CI]	P> t
Before				
Control				4.9e-04
Treated				4.4e-04
Diff (T-C)				4.5e-04
After				
Control				4.4e-04
Treated				3.6e-04
Diff (T-C)				7.8e-03
Diff-in-Diff				2.3e+03
	7255.267	1.07	0.293	
	8885.777	0.26	0.799	
R-squared = 0.14				

Vcdrg'406'"Tgpygtu'" "

Outcome var.	coef	std. err.	[95% CI]	P> t
Before				
Control				0.99e-03
Treated				0.99e-03
Diff (T-C)				0.99e-03
After				
Control				0.99e-03
Treated				0.99e-03
Diff (T-C)				0.99e-03
Diff-in-Diff				0.99e-03
	0.99e-03	0.99e-03	0.99e-03	0.99e-03
	0.99e-03	0.99e-03	0.99e-03	0.99e-03
R-squared = 0.14				

