Evaluating the Impact of Green Gentrification

-A Case Study of London

Xiyuan Wang[1,a], Dongzhen Yuan[2,b,*]

[1]Cranbrook schools, 48304, America,
[2]Shaanxi Provincial Plant Protection Work Station, 710003, China
a. universityxiyuanwang@gmail.com, b. 49204035@qq.com
*corresponding author

Abstract: In this research, we utilize the Ordinary Least Squares (OLS) regression method to explore the relationship between green gentrification and key socioeconomic factors within London's urban landscape. Our aim is to delve into the impact of introducing or expanding green spaces on residents' lives, particularly in relation to income, life expectancy, well-being, housing costs, and unemployment rates. Through the use of OLS regression and an extensive dataset sourced from empirical evidence, we quantitatively analyze the connections between green gentrification and variations in these socioeconomic variables across different neighborhoods. Our findings reveal noteworthy associations, highlighting positive correlations between green spaces and well-being, life expectancy, and house prices, while also noting a negative correlation with the unemployment rate. These insights contribute to a comprehensive understanding of the complex dynamics between urban development, environmental enhancements, and societal well-being, emphasizing the potential advantages of green gentrification and endorsing inclusive policies. Grounded in the OLS method, our research strengthens the empirical foundation for informed decision-making among policymakers, urban planners, and researchers dedicated to cultivating sustainable and equitable urban environments.

Keywords: Gentrification, social justice, urban economics, urban green space

1. Introduction

In this research introduction, we delve into the critical importance of green spaces in urban areas, given the escalating challenges posed by climate change, population growth, and economic development. The rapid urbanization process has led to the emergence of heat island cities, where human activities and modified land surfaces contribute to higher temperatures [1]. To address these pressing issues, urban planners and policymakers are recognizing the significance of integrating green spaces within city landscapes. Green spaces, such as parks, gardens, and urban forests, offer a multitude of positive impacts on urban environments [2]. They not only improve people's life satisfaction, promoting mental well-being and reducing stress, but also help to mitigate environmental problems like heat island effects. By providing shade and cooling the urban environment, green spaces contribute to energy conservation and combat the adverse effects of urbanization on climate. Additionally, the incorporation of green spaces enhances the overall image of cities, making them

more attractive to residents and visitors alike. Furthermore, these green areas serve as valuable social spaces, fostering community interactions and a sense of belonging among urban dwellers [3].

However, alongside these positive impacts, the integration of green spaces also comes with challenges and negative consequences. The presence of green spaces can lead to an increase in land value and living costs, potentially displacing lower-income communities [4]. Additionally, the development of green spaces may attract higher-income populations, resulting in gentrification, which can further exacerbate social disparities [5]. Despite these challenges, the significance of green spaces in urban areas cannot be overstated. Emphasizing this topic is crucial for achieving sustainable development goals in modern cities. The integration of green spaces supports the principles of sustainability, balancing economic growth with environmental protection and social equity. By preserving natural ecosystems and biodiversity, green spaces contribute to a harmonious coexistence between urban development and the environment. Moreover, well-planned green areas promote social justice by providing inclusive and accessible spaces for all members of the community, regardless of their socio-economic status. Additionally, the enhancement of overall quality of life in urban areas attracts businesses and investors, fostering economic growth.

In conclusion, it is crucial to underscore the paramount importance of green spaces in countering the detrimental consequences of urbanization, bolstering ecological endurance, and nurturing communal harmony. By acknowledging the manifold influences of green spaces and tackling the obstacles they present, city planners and decision-makers have the capacity to forge cities that are healthier, more sustainable, and better prepared for the generations that lie ahead.

2. Literature Review

Gentrification refers to the process of urban renewal and revitalization in deteriorated neighborhoods, often leading to the influx of wealthier residents and businesses, resulting in the transformation of the area's social and economic fabric. This phenomenon typically involves the renovation of older buildings, the development of new infrastructure, and the introduction of higher-priced commodities, making the neighborhood more appealing to affluent individuals. As a consequence, original lower-income residents may face rising living costs and potential displacement. Gentrification is a complex and multifaceted process that has drawn significant attention from researchers, policymakers, and urban planners worldwide.

2.1. Impact of gentrification

The impact of gentrification extends to various aspects of urban life, encompassing environmental, economic, and political dimensions. First, the environmental impact is evident through improved urban landscapes, as gentrification often brings investments in green spaces and public amenities, contributing to a more attractive and sustainable urban environment [6]. However, the process may also lead to environmental concerns, such as the displacement of existing flora and fauna and increased waste generation due to construction activities.

Secondly, on the economic front, gentrification can stimulate local economic growth by attracting businesses and driving property value appreciation. Simultaneously, it may also exacerbate social and economic inequalities, as the rising living costs could lead to the displacement of long-term residents and cultural businesses [7].

Moreover, gentrification has significant implications for the political landscape, as it involves different social classes and stakeholders with varying interests. The process can lead to the displacement of marginalized communities and disrupt social cohesion, raising questions about social justice and the allocation of resources in rapidly changing urban settings [8].

2.2. Green gentrification

Green gentrification is a concept that emerges at the intersection of urban revitalization and environmental consciousness. It describes the phenomenon where environmental improvements, such as the development of green spaces, sustainable infrastructure, and eco-friendly initiatives, attract affluent individuals and businesses to previously neglected urban areas. Green gentrification seeks to combine the benefits of urban renewal with ecological sustainability, aiming to create livable and environmentally conscious neighborhoods.

The term "green gentrification" originated in response to the increasing importance of environmental issues and the growing interest in sustainable urban development. It refers to the revitalization of urban areas through eco-friendly initiatives and green projects that appeal to environmentally conscious residents and businesses.

At its core, green gentrification aims to promote sustainable practices and enhance the quality of urban life while addressing environmental challenges. However, similar to traditional gentrification, it may also raise concerns about social equity and the potential displacement of existing communities due to rising living costs and property values.

Green gentrification has significant environmental impacts, both positive and negative. On the positive side, it raises awareness of environmental issues, prompting residents and businesses to adopt more sustainable practices [9]. The development of green spaces, such as parks and urban forests, provides valuable recreational areas and enhances the overall quality of life in the neighborhood. Additionally, eco-friendly initiatives can address global challenges like heat island effects and global warming, contributing to the city's resilience against climate change [5].

However, green gentrification may also have negative consequences. The influx of wealthier residents and businesses can lead to increased pressure on natural resources and higher demand for energy consumption. Additionally, the process might displace low-income communities, creating social and economic disparities and limiting access to green spaces for marginalized groups [5].

Balancing the environmental benefits with social equity considerations is crucial in ensuring that green gentrification contributes positively to urban sustainability and inclusivity [10]. Striking a balance between ecological improvements and addressing social justice issues is vital for creating environmentally conscious and socially equitable urban spaces.

2.3. Research Question

Over time, the process of gentrification has evolved, with new factors influencing its trajectory, such as changing social preferences for greener and sustainable living. Additionally, the expansion of gentrification into previously less-selected areas raises questions about the broader implications for urban development and environmental conservation. While much research has explored the impact of gentrification on urban landscapes, there remains a research gap concerning its effects on citizens' well-being. Understanding how gentrification influences physical and mental health, social cohesion, and overall quality of life of residents is vital for creating equitable and sustainable urban environments. The perspectives of residents, their experiences, and how they perceive gentrification's consequences on their well-being are often overlooked in existing studies. Bridging this research gap will provide insights into the lived experiences of individuals affected by gentrification and inform policies that prioritize the well-being and social welfare of diverse urban communities. Moreover, the advancement of technology and data collection methods provides opportunities to delve deeper into the complex relationship between gentrification and the environment. Bridging this research gap is essential to inform evidence-based policies that promote environmentally conscious urban development while safeguarding the interests of diverse urban populations. Therefore, this study aims to look at the following leading research question:

Is the development of green space contributing to social justice?

In the realm of green gentrification, it becomes imperative to examine whether the establishment of green spaces in urban areas is genuinely fostering social justice. By comprehending the potential advantages and disadvantages of such endeavors, we can ascertain if they are accessible and all-encompassing for every community member, regardless of their socio-economic status. This research will elucidate the equity ramifications of green space initiatives and steer policymakers towards ensuring that urban greening efforts contribute to a fairer and more equitable society. In order to address this leading question, we have demonstrated the following three detailed questions:

- ❿ Will the development of green space lead to an increase in local housing/rental prices?
- ❿ Will the development of green space influence residents' well-being?
- ❿ How to balance the impact of green gentrification through policymaking?

3. Method

3.1. Study Area

London's green spaces play a vital role in enhancing the city's environment and residents' well-being. According to key figures from Greenspace Information for Greater London (GiGL), these green areas have a significant impact on the city's landscape. With approximately 47% of London being green space, it is evident that the city recognizes the importance of preserving natural habitats and providing recreational areas for its growing population [11]. The availability of green spaces in London has become even more crucial as the city experiences rapid population growth and urban development. As highlighted in the article "London Desperately Needs More Greenspace" from GoParks London, the demand for green areas has intensified due to the rising number of people living in urban areas. These spaces not only provide a respite from the hustle and bustle of city life but also contribute to mitigating the urban heat island effect and improving air quality. Moreover, green spaces offer various benefits to the well-being of London's residents. The presence of parks, gardens, and open spaces allows people to engage in physical activities, socialize, and connect with nature. Studies have shown that spending time in green environments can reduce stress, anxiety, and depression, leading to an overall improvement in mental health. However, despite the existing green spaces, the city still faces challenges in meeting the demand for greenspace. The rapid urbanization has resulted in limited availability of land for new parks and green areas, and this poses a threat to the city's biodiversity and ecological balance. London must find a balance between urban development and preserving its green spaces to ensure sustainable growth. In conclusion, London's green spaces are invaluable assets that contribute to the city's beauty, well-being, and ecological diversity. As the city continues to grow and evolve, it is essential to prioritize the preservation and expansion of green areas. By doing so, London can create a more sustainable and livable environment for its residents while preserving its natural heritage for future generations [11].

London's gentrification has become a pressing issue as the city undergoes significant urban transformations. According to the Centre for London, the process of gentrification has led to changes in the city's places and environment. As wealthier individuals move into certain neighborhoods, property prices rise, and the cost-of-living increases, resulting in the displacement of long-time residents and businesses. This phenomenon has raised concerns about social inequality and the loss of community cohesion. Moreover, gentrification has also impacted on the environment. As discussed in the article from The Guardian, the concept of "green gentrification" has emerged, wherein the introduction of green spaces and eco-friendly initiatives can inadvertently drive out poorer communities. This rewilding and environmental regeneration can lead to rising property values, making housing unaffordable for existing residents. Additionally, green gentrification may not fully address the social and economic needs of marginalized communities, further exacerbating social

disparities. The issue of gentrification in London requires careful consideration and thoughtful policies to ensure that urban development benefits all residents and preserves the city's diverse and vibrant character.

3.2. Data Source

The data source for information about London is the London Datastore (https://data.london.gov.uk/), a platform that provides access to a wide range of datasets related to the city. The data available on this platform covers various factors that contribute to the understanding of London's urban landscape and population dynamics. Some of the factors included in the datasets are demographics, transportation, housing, crime rates, air quality, green spaces, educational facilities, health, economy, and social services. The using terms and their explanations are shown in **Table 1**. Researchers, policymakers, and the public can utilize this wealth of data to gain insights into various aspects of London's development and make informed decisions for the city's future.

Table 1: Variables Table

Variables	Description
Green_area_hectare	The average green space in hactare of each ward
Percent_green	The average green space percentage of each ward
House Price	The average house price of each ward
Qualification 4	Certificate of higher education of each ward
Income	The average income of people of each ward
Life Expectancy 2009-13	The average age people expected to alive of each ward
Unemployment rate 2013	The average unemplyment rate of each ward
Access to local park	Deficiency in access to designated parks/public open space, and deficiency of each ward
Subjective well-being	These ward level well-being scores present a combined measure of well-being indicators based on 12 different measures of each ward

3.3. Ordinary least squares

Ordinary Least Squares (OLS) Regression is a statistical method used to analyze and model the relationship between a dependent variable and one or more independent variables. It aims to find the best-fitting line through data points by minimizing the sum of squared differences between observed and predicted values. OLS Regression is widely employed in various fields, including data science, economics, and social sciences, as it allows researchers to understand the strength and direction of variable associations and make informed decisions based on statistical analyses.

The formula for OLS Regression can be expressed as follows:

$$Y=\beta_0+\beta_1X_1+\beta_2X_2+...+\beta_nX_n+\varepsilon \qquad (1)$$

In the formula:
Y represents the dependent variable being predicted.
$X_1, X_2, ..., X_n$ are the independent variables that influence Y.
$\beta_0, \beta_1, \beta_2, ..., \beta_n$ are the coefficients representing the impact of each independent variable on Y.
ε denotes the error term, accounting for the variability not explained by the model.

In the study exploring the relationship between access to green space and various factors such as income, house price, subjective well-being score, life expectancy, and unemployment rate in London,

OLS Regression serves as a fundamental tool. It helps researchers assess the impact of proximity to green spaces on these key indicators. The analysis of regression coefficients can reveal how changes in green space accessibility influence these factors. By employing OLS Regression, policymakers and urban planners can gain valuable insights into the potential benefits or drawbacks of enhancing green spaces within cities, supporting decisions that promote community well-being and sustainable urban development.

In this study:

X represent the Access to local park

Y in 4.1 represent the House price

Y in 4.2 represent Wellbeing

Y in 4.3 represent Income

Y in 4.4 represent Life Expectancy

Y in 4.5 represent Unemployment rate

4. Result

4.1. A subsection Green Space and Social Economy

4.1.1. House price
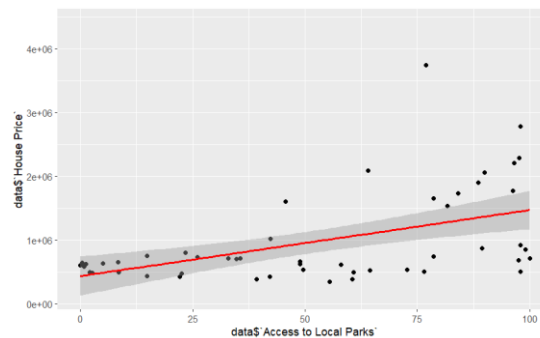
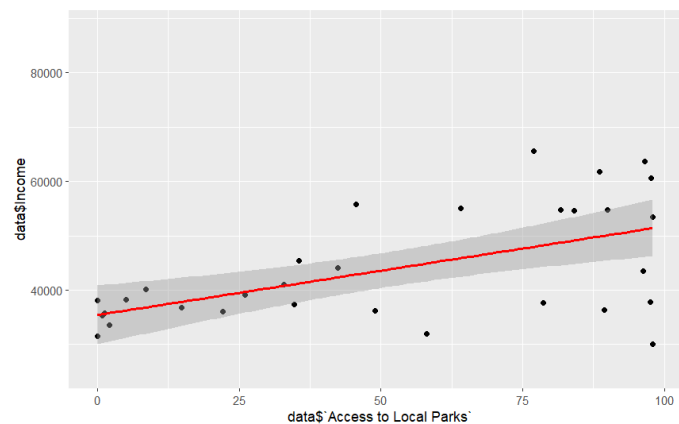Figure 1: The Relationship Plot Between Access to Local Parks And House Price

Table 2: Regression Analysis of Access to local parks and House price

Correlation between Access to Local Park and House Price	Degree of Importance	Multiple R-squared
10369	Two Stars	0.2595

The positive correlation between the access to local parks and house prices in London is evident through the **Figure 1**, indicating that as the accessibility to green spaces increases, the house prices also tend to rise.

According to **Table 2**, the data reveals a clear pattern, where areas with higher accessibility to local parks and green spaces show higher house prices compared to areas with limited access to such amenities. The calculated slope of 10369 suggests that for every 1% increase in green space accessibility, the house prices increase by 10369 pounds. This strong positive correlation coefficient signifies a relatively significant relationship between the variables.

Moreover, approximately 25.95% of the actual data points align with the predicted values based on the correlation, indicating a highly significant relationship. This statistical significance confirms that the positive correlation between green space accessibility and house prices is not random, but rather a meaningful trend in the data.

Several factors can explain this phenomenon. Firstly, green spaces and well-maintained parks enhance the overall quality of life in a neighborhood. Such areas often offer a peaceful and attractive living environment, which increases the demand for housing, leading to an upward pressure on house prices.

Secondly, green spaces provide recreational opportunities, access to nature, and a sense of community, all of which are highly valued by potential homebuyers. As the desirability of an area with abundant green spaces increases, so does the competition among buyers, further driving up the house prices.

Additionally, investing in green spaces and maintaining parks requires financial resources and dedication from the local authorities. As a result, neighborhoods with well-preserved green spaces are often associated with higher socioeconomic status, leading to higher house prices in these areas.

4.1.2. Income

Figure 2: The Relationship Plot Between Access to Local Parks and Income

Table 3: Regression Analysis of Access to Local Parks and Income

Correlation between Access to Local Park and House Price	Degree of Importance	Multiple R-squared
163.02	Three Stars	0.3314

The correlation between the availability of local parks and income in London demonstrates a significant positive relationship in **Figure 2**. This is supported by data in **Table 3**, with approximately 33.14% of the actual and predicted data points aligning with the regression formula, emphasizing the importance of this finding. Specifically, for every 1% increase in accessibility to green spaces, there is a £163 increase in income, as indicated by a slope of 163.

There are several factors that explain this phenomenon. Firstly, neighborhoods with better access to parks and greenery are considered more desirable places to live, resulting in higher real estate values and subsequently higher incomes for homeowners in those areas.

Furthermore, the presence of green spaces in urban settings contributes to economic development and job creation. Parks and recreational areas not only improve the quality of life for residents but also attract tourists and visitors. This increased foot traffic benefits local businesses, restaurants, and services, creating opportunities for higher income levels for those involved in the local economy.

In addition, green spaces provide opportunities for recreational activities, sports events, and cultural gatherings. These activities stimulate local businesses and generate revenue for the community, leading to higher income levels for residents.

Moreover, the presence of green spaces is often associated with well-maintained and aesthetically pleasing neighborhoods that tend to attract a wealthier demographic. Consequently, the average income for residents in these areas is higher.
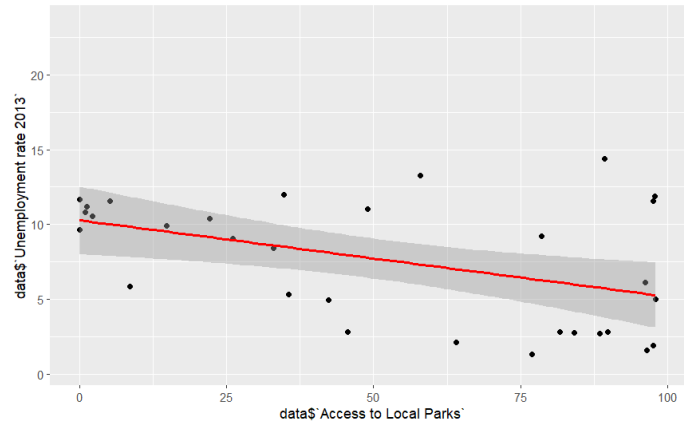
4.1.3. Unemployment Rate

Figure3: The Relationship Plot Between Access to Local Parks and Unemployment Rate

Table 4: Regression Analysis of Access to Local Parks and Unemployment Rate

Correlation between Access to Local Park and House Price	Degree of Importance	Multiple R-squared
-0.05099	Three Stars	0.2164

Figure 3 shows a notable inverse relationship between the availability of local parks and the unemployment rate in London. The data in **Table 4** shows that for every 1% increase in accessibility to green spaces, the unemployment rate decreases by 0.05%, as indicated by the slope of -0.05. This finding is supported by the fact that around 21.6% of the observed and predicted data points align with the regression formula, reinforcing its significance.

There are several factors that contribute to this phenomenon in areas with varying levels of green space accessibility. Firstly, areas with better access to local parks tend to be well-developed and desirable neighborhoods. These areas offer a higher quality of life, better amenities, and improved infrastructure, which attract businesses and investment. Consequently, residents in these areas have better access to job opportunities, leading to lower rates of unemployment.

Secondly, the presence of green spaces contributes to a healthier and more pleasant living environment. Access to recreational areas improves physical and mental well-being, resulting in a more productive and engaged workforce. A healthier population is less likely to be absent from work and more likely to retain their jobs, thus reducing unemployment rates.

Furthermore, local parks serve as gathering places and venues for community events, fostering social connections and networking opportunities. These interactions can facilitate job referrals and networking, thereby potentially lowering the unemployment rate in the area.

Green gentrification has a positive impact on social economy: it will raise the local house price, provide more job opportunity and decrease the unemployment rate. After this process, only rich citizens have access to live in the area where were experienced green gentrification.

4.2. Green Space and Wellbeing

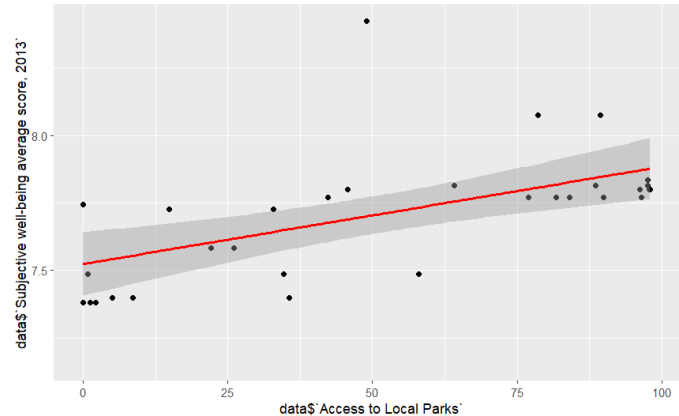### 4.2.1. Subjective Well-Being average score

Figure 4: The Relationship Plot Between Access to Local Parks and Subjective Well-Being

Table 5: Regression Analysis of Access to Local Parks and Subjective Well-being Average Score

Correlation between Access to Local Park and House Price	Degree of Importance	Multiple R-squared
0.0036044	Three Stars	0.3385

There is a noteworthy positive correlation between the accessibility of local parks and the subjective well-being score in London, and **Table 5** presents their relationship in graph. According to **Figure 4**, the correlation coefficient, with a value of 0.0036, indicates that a 1% increase in green space accessibility leads to a corresponding 0.0036 increase in the subjective well-being score. This correlation is strongly supported by the data, as approximately 33.85% of the actual and predicted data points align with the regression formula, further underscoring the significance of this finding.

This phenomenon can be attributed to the various positive impacts that green spaces have on individual well-being. Access to local parks offers opportunities for recreation, relaxation, and physical activities, all of which contribute to improved mental and physical health. Engaging with nature and green environments is well-known to alleviate stress, anxiety, and depression, resulting in a more positive outlook on life and an enhanced sense of well-being.

Green spaces also foster a sense of community and social cohesion. They serve as gathering places where people can come together, socialize, and form meaningful relationships. This social interaction positively affects subjective well-being by providing individuals with a sense of belonging and support.

Furthermore, the presence of green spaces in urban areas enhances the overall aesthetic appeal of the surroundings. Well-designed parks and greenery create a pleasant environment that can uplift mood and increase overall life satisfaction.
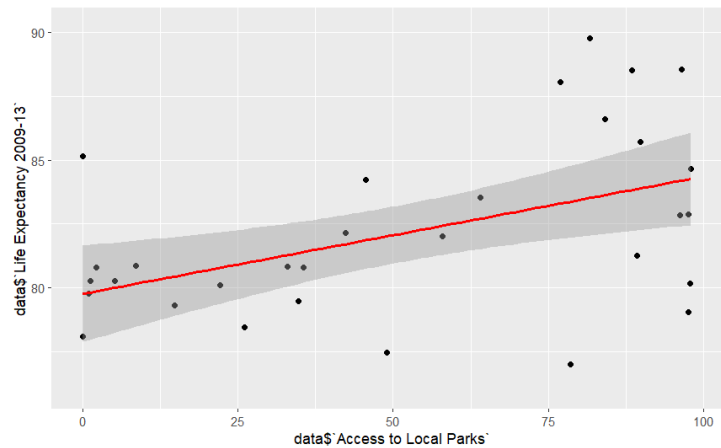
4.2.2. Life Expectancy

Figure 5: The Relationship Plot between Access to Local Parks and Life Expectancy

Table 6. Regression Analysis of Accessto Local Parks and Life Expectancy

Correlation between Access to Local Park and House Price	Degree of Importance	Multiple R-squared
0.04591	Three Stars	0.2441

The discovery of a significant and promising positive correlation between the accessibility of local parks and life expectancy in London is an important finding, and **Figure 5** presents their relationship in graph. The data in **Table 6** shows that for every 1% increase in green space accessibility, there is an associated increase in life expectancy of 0.04591 years, as indicated by a slope of 0.04591. The strength of this relationship is supported by the alignment of approximately 24.41% of the actual and predicted data points with the regression formula, emphasizing the significance of this discovery.

There are several factors that contribute to this phenomenon. Firstly, green spaces offer numerous health benefits that can positively impact life expectancy. The availability of parks encourages physical activity and outdoor exercises, promoting a healthier lifestyle and reducing the risk of chronic diseases such as obesity, diabetes, and cardiovascular problems. Engaging in leisurely walks, jogging, or cycling in green environments can greatly improve overall health and well-being, leading to a longer life expectancy.

In addition, green spaces provide a refuge from the fast-paced urban environment, reducing stress and mental health issues. Exposure to nature and greenery has been linked to lower levels of anxiety, depression, and improved cognitive function, all of which contribute to better mental and emotional health, ultimately enhancing life expectancy.

Furthermore, the presence of green spaces can help mitigate environmental factors that negatively impact health, such as air pollution and the urban heat island effect. Trees and vegetation in parks act as natural air filters, improving air quality and reducing the risk of respiratory diseases.

Moreover, green spaces foster social cohesion and community engagement by providing opportunities for social interactions and gatherings. Strong social connections have been associated with better health outcomes and increased life expectancy.

Green gentrification has a positive correlation with people's well-being: it can increase citizens' satisfaction with their life and extend their life expectancy. With the conclusion from 4.1 that Green gentrification have positive impact on social economy, the only benefit of green space is for people who can afford high House Price with high Income level.

5. Conclusion

In conclusion, our investigation on the phenomenon of gentrification and its relation to the development of green spaces in London has yielded valuable insights into the interplay between access to green areas and crucial socio-economic indicators. The results indicate a positive association between the availability of green spaces and factors such as housing prices, subjective well-being, income levels, and life expectancy. This suggests that increased access to green spaces is linked to higher housing prices, enhanced well-being, greater incomes, and longer life spans for city residents.

Additionally, we observed a negative correlation between access to green spaces and the unemployment rate in London. This implies that the creation of green areas could potentially lead to a reduction in unemployment by attracting businesses and generating employment opportunities within the local community.

Based on our analysis through Ordinary Least squares, it can be inferred that the development of green spaces is highly likely to have a positive impact on the well-being of individuals. Enhanced access to green areas can contribute to an improved overall quality of life for residents, providing avenues for recreation, relaxation, and better mental health.

Overall, our study underscores the importance of incorporating green spaces into urban planning and development. The positive associations with key socio-economic factors highlight the potential advantages of integrating green spaces into city design. Nevertheless, it is crucial for policymakers and stakeholders to carefully balance their efforts in green gentrification initiatives, ensuring that they promote social equity and sustainable urban growth while mitigating the risks of displacement and gentrification's adverse effects on local communities. By thoughtfully considering the consequences of green space development, we can foster inclusive and thriving urban environments that benefit all residents.

References

[1] Zhou, X., & Chen, H. (2018). Impact of urbanization-related land use land cover changes and urban morphology changes on the urban heat island phenomenon. Science of the Total Environment, **635**, 1467-1476. https://doi.org/10.1016/j.scitotenv.2018.04.091

[2] Rigolon, A., & Németh, J. (2020). Green gentrification or 'just green enough': Do park location, size and function affect whether a place gentrifies or not?. Urban Studies, **57(2)**, 402-420.

[3] Shishegar, N. (2014). The impacts of green areas on mitigating urban heat island effect: A review. The International Journal of Environmental Sustainability, **9(1)**, 119.

[4]   Anguelovski, I., Connolly, J. J., Cole, H., Garcia-Lamarca, M., Triguero-Mas, M., Baró, F., ... & Minaya, J. M. (2022). Green gentrification in European and North American cities. *Nature communications*, **13**(1), 3816.

[5]   Gould, K., & Lewis, T. (2016). *Green gentrification: Urban sustainability and the struggle for environmental justice.* Routledge.

[6]   Zuk, M., Bierbaum, A. H., Chapple, K., Gorska, K., & Loukaitou-Sideris, A. (2018). Gentrification, displacement, and the role of public investment. *Journal of Planning Literature*, **33**(1), 31-44.

[7]   Huang, Y., Chen, C., Lei, L., & Zhang, Y. (2022). Impacts of green finance on green innovation: A spatial and nonlinear perspective. *Journal of Cleaner Production*, **365**, 132548. https://doi.org/10.1016/j.jclepro.2022.132548

[8]   Jelks, N. T. O., Jennings, V., & Rigolon, A. (2021). Green gentrification and health: A scoping review. *International journal of environmental research and public health*, **18**(3), 907.

[9]   Cole, H. V., Lamarca, M. G., Connolly, J. J., & Anguelovski, I. (2017). Are green cities healthy and equitable? Unpacking the relationship between health, green space and gentrification. *J Epidemiol Community Health*, **71**(11), 1118-1121.

[10]   Gould, K. A., & Lewis, T. L. (2018). From green gentrification to resilience gentrification: An example from Brooklyn.

[11]   Vargas-Hernández, J. G., Pallagst, K., & Zdunek-Wielgołaska, J. (2023). Urban green spaces as a component of an ecosystem. In *Sustainable Development and Environmental Stewardship: Global Initiatives Towards Engaged Sustainability* (pp. 165-198). Cham: Springer International Publishing.