WHS Journal of Scholarship

Combating Poor Walkability: How Form-Based Codes Protect Citizens

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AP Seminar at Weymouth High School
Submitted 2 June 2023

Abstract

Though not popular, poor walkability has become a concerning and eventually lethal issue to the U.S. Citizens, especially marginalized individuals. Traditional zoning has proven unjust and unsafe considering zoning's connection with structural racism. Additionally poor walkability has stunted the U.S. economy, causing it to cause more harm in a holistic sense. Walkability discussions have previously centralized around policies and zoning, yet researchers question the credibility of such . Form based codes present as an optimal method to replenish walkability as it allows for the combination of a regulation of the built environment, pedestrian encouragement and further encourages community building. While the new language and gentrification concerns can be a setback, the benefits undeniably outweigh them.

Introduction

Over the years, nations around the globe have developed beautiful environments through change and transformation. At times, change can be negative; Eric Bender shares his insight on change, noting the dangerous climate and environmental state in urban neighborhoods (11). Julia Watson however, values change through regression, bringing attention to the effectiveness of past innovations to solve modern-day issues. In America, walkability has changed for the worse and poses a huge issue in communities facing the struggles of discrimination and inequities. The cause of poor walkability is not simply on people to blame, but instead, the larger fault lies in the built environment. Aditi Shrikant, a psychology reporter at CNBC, states that “The average walk score of all American cities with a population of over 200,000 is 49”. This is a frightening statistic as the majority are underperforming and it has dangerous implications for its citizens. Wesley Jenkins, a writer for Urban Institute, recalls that in Washington D.C., during 2015 alone, “a pedestrian or cyclist had been dying

on the city's streets every 21 days". The capital, a key representative of the USA, facing such repercussions from poor walkability, creates concerns for what it means to the rest of the country. With this information in mind, citizens must pose the question: In what ways can poor walkability effectively be addressed to cater to disadvantaged communities? This paper addresses this through the stakeholders of disadvantaged citizens, an economic lens, and a political and legal lens. The reformation of zoning to include form-based codes is the most effective way to combat poor walkability in disadvantaged U.S. communities. They work to allow built environment regulation, pedestrian encouragement, and community improvement.

Poor Walkability's Effect on Disadvantaged Citizens

Within the walkability conversation, experts recognize the heightened negative impacts that poor walkability has on all marginalized citizens. F. Kaid Benfield, a Senior Counsel at PlaceMakers LLC, attributes poor walkability to the "outdated zoning and regulatory scheme" put in place. The use of traditional zoning has past proven itself harmful to marginalized citizens, only existing due to the decisions of the more privileged. Susan C. Duncan, a senior scientist at Oregon Research Institute, shows concern for the state of low walkability in neighborhoods, recounting the numerous minority families forced to deal with a lack of walkable amenities as well as "more danger from crime and traffic" due to the effects of structural racism (Duncan et al. 154). This is telling of how the odds are often stacked against marginalized individuals who are put at a disadvantage even from a young age. After high school, poor walkability continues to affect adolescents. Tanya M. Horacek, a professor at Syracuse University, extends on Duncan's point, noting walkability safeness in college campuses as "less than acceptable" (13). Throughout adolescence, safety plays a big role in creating a healthy, functioning adult, and it is concerning that campuses are lacking in this area. Jiaqi Zhu, a Harvard research assistant, shares Horacek's concerns, shedding light on the "heightened health disparities" experienced by areas struggling with walkability (7). Considering how these individuals are already put at a disadvantage due to their marginalization, poor walkability adds to the load, making it abundantly clear that these people are put at a disservice. While past researchers notice the inequities faced by disadvantaged citizens, Arlie Adkins, a professor of urban planning at the University of Arizona, highlights the difficulties of escaping poor walkability. Citizens should consider Adkin's expertise as she elaborates on these communities having "limited ability to relocate" into safer and walkable cities due to high demand causing "disadvantaged groups [to be] left in the dust" (Adkins 298). These individuals are forced to deal with their poor walkability further, creating a frightening cycle and making community progression increasingly difficult. While Benfield, Duncan, and Horacek notice the disparities in walkability within disadvantaged families, Zhu and Adkins focus on the other varying concerns of poor walkability.

The Economic Insights of Walkability

It is essential to acknowledge the economic impacts to fully understand the issue of poor walkability. While experts discuss the varying effects of poor walkability, they widely agree that this issue has caused the U.S. economy to suffer. Shrikant points out that while the U.S. is "a car-centric society…one-third of Americans don't have a license",with the majority of working pedestrians "making under $50,000" (3). This is disheartening as it conveys how low-income individuals are more susceptible to poorly built environments, adding to the other disadvantages they already face. Amir

Hossein Sirjani, a faculty member of architecture at Budapest University, adds on, noting that with “5-10% of car trips” being unnecessary, improving walkability can prompt an “affordable transportation system” (47). Considering this percentage, poor walkability isn’t only increasing carbon emissions and harming the environment, but is also extremely disadvantageous for the economy, just as it is for pedestrians. Sherman Lewis, a political science professor at Cal state east bay, brings a new perspective to the table, pointing out that suburban societies and their high costs are negatively impacting society. He points out “free parking” only ends with a “tax burden” on pedestrians due to “sales taxes replace declining revenues from gas taxes” (Lewis and Adhikari 503). Free parking perpetuates poor walkability and continues to harm pedestrians while rewarding those who have the luxury of owning a car. Road pricing is often brought up as a way to incentivize citizens to walk, however, its effectiveness in improving walkability is unclear. Bjarn Madsen, from the Institute of local government studies in Copenhagen, notes that there can be “consequences of a major change” within road pricing (162). This can be especially true in low-income communities which may struggle to pay these tolls, and consequently, are forced to walk in unsafe conditions. While Sirjani and Adkins mention how car usage intersects with the economic view of walkability, Lewis explains how poor walkability stems from the economic issues of suburbia, and Madsen explains the faults within road pricing

The Government’s Role in Walkability

Looking at America’s past, the U.S. government has been slow to acknowledge the poor walkability in disadvantaged communities. Though experts debate the efficacy of the legal system in zoning, they agree that it plays a fundamental role in the walkability discussion. Louis G. Tassinary, an architecture professor at Texas a&m university, holds the idea that zoning decisions that are “sufficiently unreasoned or sophistical” act to “violate the Equal Protection Clause” (2). The Constitution has made it clear that it supports all citizens, regardless of status when considering zoning. Alternatively, Andrew H. Whittemore, an associate chair at Carolina Planning, who has dedicated years of his life to understanding zoning, questions the validity of putting trust in political power structures noting its “problematic” nature, with powerful figures “prefer[ing] sitting polluting uses in communities of color”(238). Bias and negative stereotypes concerning marginalized citizens move past a social setting and continue to impact their very way of living. Still, researchers such as Dr. Lucy Dubrelle Gunn, a research fellow at the RMIT Centre for Urban Research, hold an optimistic view towards the U.S. government, stating a need for “greater focus on adherence” in combination with “implementation of policy requirements” (9). Though America’s history of zoning mistreatment in marginalized communities should not be disregarded, It is undeniable the courts can play a primary role in addressing the situation. Acknowledging this reality, Bill Chappell, a writer at NPR, supports the idea of “mixed-use real estate developments” believing it's an improvement for poor walkability. However, citizens should consider the practicality of arranging different types of areas into one space, especially as to what it could mean for congestion and population. While Tassinary and Whittemore debate the government’s compliance with poor walkability in marginalized communities, Gunn and Chappell look forward to how to improve the issue.

Solution

Form-based codes are the current most effective solution to addressing poor walkability. Form-based codes are a part of zoning, a legal process that reforms laws affecting properties. Codes within this process function as regulations to enforce zoning. Form-based codes specifically are regulations that

are centered around form and aesthetics. Due to this attribute, they also cater to pedestrians alongside addressing past issues with ineffective zoning. They create an effective building block that can be used to combat poor walkability in disadvantaged U.S. communities, working to regulate the built environment, create pedestrian encouragement, and improve communities.

Built Environment Regulation

Primarily, form-based codes are an optimal solution because it touches on the core issue of a poor built environment, by regulating it. Mengbing Du, a member of public policy at the University of Hong Kong, supports form-based codes, explaining that they " mandate[s] higher-density development" making destinations closer and creating "a more pedestrian-friendly neighborhood" (817). This displays a positive cause-and-effect relationship as pedestrians have more incentive to walk when there are places built for them to walk to. Dr. Gail Hansen, an associate professor at the University of Florida, agrees with Du, adding that unlike broad audits these codes "are often written to regulate many specific features or details" (Hansen 162). The specificity of these types of codes, creates a planned structure of a built society, avoiding workarounds and loopholes. Ajay Garde, a professor of Urban Planning at UCI School of Social Ecology, agrees with previous researchers, explicating that form-based codes "integrate walkable streets, street network, and mixed-income diverse communities criteria" more so than "conventional zoning regulations" (347). Form-based codes prove themselves as not only reliable, but also more effective than the previously used zoning. Knowable Magazine goes on to mention the evolution of rats to have "distinct genomic profiles in different neighborhoods" (9). While rats are forced to deal with their deprivative environment and wait for evolution to take its course, humans are not restrained to those circumstances. Concerning the detrimental state of walkability in disadvantaged communities, humans can change their built environment and this advantage should be recognized and utilized in the walkability discussion.

Pedestrian Encouragement

Considering how form-based codes center around aesthetics, they also entice citizens to walk more. Hansen shares that he sees the potential in these codes, noting that they "help communities make their towns more walkable" (Hansen 169). Creating these codes gives communities the base and policies needed, to put a system in place that values its pedestrians and acknowledges the benefits of walkability. He details that its ability to "regulate through description…and measurement" regulates walkability "that can be described, identified and counted on the street" (Hansen 168). This is especially noteworthy as it conveys the substantial facets of form-based codes; being so clear that it can be easily pointed out, further enhancing the desirability of walking. Garde agrees with Hansen's approval of these codes, adding that the "strongest form-based codes" are better than conventional codes as they contain "more sustainability criteria to a stronger degree" (362). This shows how putting a value on the aesthetics of a built environment is not short-lived, but remains effective much longer than conventional codes.

Community Improvement

Lastly, form-based codes should be enacted as they can improve American communities. Firstly, it has received commendation from the U.S. government with the enacted "Senate Bill [SB] 375" contributing to the "adoption of form-based codes" to create "sustainable development" (350). This is telling as it displays that the government notices the importance of reform to improve not only the conditions, but those affected themselves. In addition to this, Garde shares that form based-codes "strongly include criteria" for "mixed-income diverse communities"

(360). The advancement in walkability through these codes is beneficial to disadvantaged individuals as it pushes for diversity and inclusion. Tassinary adds how US citizens “should actively seek aesthetic goals” through political means (9). This unified support to achieve walkability brings communities together through a similar cause. Watson highlights her support for regressional change through “Acadjas”, the ancient and “chemical-free” innovation, “feed[ing] one million people”. Planners can in a similar sense reflect on the past and collaborate to enact these helpful laws. In the same way that the Acadjas work to feed a community, these codes can work to nurture and bring together communities.

Limitations and Implications

While form-based codes are an exceptional solution to poor walkability, they do have drawbacks. One issue often brought up is the “difference in the format and language of the codes” which can confuse city planners (Hansen 163). There have also been concerns about them leading to gentrification (Adkins et al. 300). Though these setbacks are possible, they do not outweigh the undeniable benefits and can be avoided through efficient government cooperation. Citizens should not overlook the increased physical activity that it provides, helping the well-being of citizens (Lewis and Adhikari 503). In addition to this, they are eco-friendly as they encourage walkability over driving and reduce carbon emissions released by vehicles.

Conclusion

Overall, form-based codes are the most effective way to combat poor walkability within disadvantaged communities. Citizens must take action and raise awareness of the importance of walkable societies. Alongside this, governments should reform traditional zoning to include form-based codes and further aid American citizens.

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