Does new urbanist neighborhood design affect neighborhood turnover?

Yunmi Park*

Community Planning Program in Department of Political Science, Auburn University, United States

ARTICLE INFO

Keywords:
New urbanism
Residential turnover
Compactness
Neighborhood design
Neighborhoods

ABSTRACT

This paper explores the extent to which new urbanist principles (e.g., compactness, mixed use, street connectivity, and open space) influenced neighborhood residential turnover in Austin, Texas, from 2009 to 2011, with a focus on micro-scale-level neighborhoods. The results of this study indicate that new urbanism principles play unique roles in turnover, most of which appear to be positive in increasing turnover, except the sidewalk and proximity to a lake. In summary, residents currently tend to reside longer in a neighborhood with typical suburban neighborhood designs, not new urbanist. Among the design principles of interest in this study, proximity to a lake proves to be the most powerful predictor, followed by distance to the CBD and dwelling density. As natural features such as lakes or hills are given conditions that are less likely to be altered by humans, we conclude that turnover tends to be sensitive to “compactness.” Thus, planners are urged to carefully consider the issue of “compactness” to successfully create stable neighborhoods.

1. Introduction

Planners are often asked to design improved neighborhoods in which residents can live for extended periods of time. Guides from planners often take codified forms such as comprehensive plans, design guidelines, development regulations, and ordinances that yield long-term effects on the lives of people and on built environments. However, these decisions are often made with limited evidence, bolstered by theoretical arguments or emotionally-driven values and beliefs. In a similar way, new urbanists have proposed several designs that can increase overall quality of life by promoting compactness, pedestrian movement, and equity while also preserving the land and environment for future generations (Brownstone and Golob, 2009; Furuseth, 1997; Lee and Moudon, 2004; Talen, 1999). Despite its waning popularity, new urbanist actions and policy guides persist in the form of smart growth, urban villages, form-based code, and Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND), resulting in large investments of public and private funding. For example, the Department of Housing and Urban Development (HUD) devotes $750 million per year to the HOPE VI program launched in 1992, which applies new urbanist principles to the building of affordable housing (Popkin, 2004). Developers often use new urbanist principles of sustainability as a marketing strategy to sell their traditional-suburban subdivisions. Although several policies and developments guided by new urbanism has successfully combatted reckless suburban developments and urban sprawl since the late 1990s, more specific implementation strategies are still required.

In order to develop sophisticated implementation guides, previous empirical studies have observed the impact of new urbanism on several domains of peoples’ lives, such as physical activities, environmental protection, social interaction, and neighborhood satisfaction. Revealed (e.g., housing price) and stated preferences (e.g., survey or interview) were also used to test whether conceptual suggestions produced their expected effects once they were implemented. A large body of research has found that not all new urbanism principles worked effectively. Moreover, the preferences and assessments toward new urbanism among residents proved to be inconsistent across studies. Although the authors did not mention why resident preferences differed across studies, one reason might be found in the different levels of planning intervention, geography, the housing market, and the cultural and historical conditions of each area studied (Park et al., 2016). As expected, cities or counties leading the implementation of new urbanism and other sustainability movements—particularly in states such as Oregon, Washington, Maryland, and Massachusetts, as well as Washington D.C.—have frequently appeared as study areas due to their long history of progressive planning, natural compactness, and diversity where new urbanist design is often perceived to be positive. By comparison, cities lacking implementation of new urbanist principles or physical/social diversity are not frequently observed in such studies. To fill this gap, this study attempts to observe the city of Austin, Texas, to explore how its residents might react to sustainable community-scaled designs.

In addition, this study uses the metric of residential turnover to measure neighborhood and community satisfaction toward new urbanist design components. Substantial empirical research has tested the
impact of these elements using revealed preference measurements such as housing price, as well as stated preference measurements such as surveys addressing satisfaction and sense of community. Few studies, however, have focused on turnover. Residential turnover functions as an effective indicator to quantify overall neighborhood satisfaction and sense of community, since lower turnover rates reflect the desire of residents to establish long-term connections with the built and social environments of their neighborhoods. In terms of planning policy, exploration of the effects of neighborhood design on turnover proves meaningful since increased neighborhood stability comprises one of the major goals of new urbanism. For example, neighborhood revitalization programs such as the federal Neighborhood Stabilization Program (NSP) for disadvantaged areas and the HOPE VI program for families in public housing attempt to mediate turnover and increase neighborhood stability while adopting new urbanist principles. If new urbanism truly offers improved designs that promote quality of life and decrease residential turnover, such planning initiatives would certainly be worthy investments.

This study attempts to pinpoint the extent to which new urbanist features such as compactness, density, mixed use, street patterns, and open space can influence residents’ decisions to stay or leave their neighborhoods in Austin, Texas. It observes the residential turnover rates of 99,912 single-family housing units in 696 neighborhoods between 2009 and 2011. The study focuses in particular on micro-level neighborhoods, i.e. residential subdivisions. The outcomes of this study are expected to broaden understanding of how people receive new urbanism, particularly in cities that are new adopters of such planning paradigm changes. The results will also contribute to improved planning approaches that accommodate for the current needs of residents and future policy directions.

2. Background literature

2.1. The impact of new urbanism on neighborhood satisfaction and sense of community

Not all components of new urbanism are new, since its design principles have been frequently implemented in policy and practice and cited in academic studies since the late 1990s. Major design principles of new urbanism such as higher density, mixed land use, smaller blocks, connected streets, better access to transit, and prevalence of open spaces and public realms have been believed that they can effectively mediate some deficits of suburban development and urban sprawl (Jabareen, 2006b). These principles have also been embedded into different development models such as transit-oriented development (TOD), traditional neighborhood development (TND), urban villages, and Smart Growth (Jabareen, 2006b). These models promote the following benefits: 1) nature and energy preservation due to decreased usage of private cars and compact developments (Anderson et al., 1996; Frumkin, 2002; Jabareen, 2006a; Kahn, 2000); 2) outdoor physical activities such as walking and biking, due to enhanced street connection and proximity to utilitarian destinations through mixed land use (Cohen et al., 2007; Forsyth et al., 2007; Lee and Moudon, 2008); and 3) increased social interaction from chance encounters on streets or public realms, due to higher density, mixed land use, mixed housing types, and the use of public transportation (Duany et al., 1991; Duany et al., 2001).

In academia, the impact of new urbanist characteristics on overall resident satisfaction, as opposed to sub-domains of quality of life, has been empirically examined through the lens of stated and revealed preferences (Yang, 2008). Stated preferences are often measured by ratings of perceived neighborhood satisfaction, while revealed preferences are measured by property market prices. The impact of new urbanism on these two measures has been inconsistent across studies and across design principles. One study found high density to be a positive factor in increasing housing price (Howley et al., 2009), while others claimed that it actually decreases housing price (Bramley and Power, 2009; Lee, 2010). Tu and Eppli (1999) found that high density was favorable only for people in new urbanist neighborhoods. Mixed land use was seen as desirable in some cases (Geoghegan et al., 1997; Van Cao and Cory, 1982), but not in others (Geoghegan et al., 1997; Jones et al., 2009). In fact, some studies conducted even by the same researchers often showed inconsistent results. Song and Knaap (2003) initially found that people were less satisfied with mixed land use, but their follow-up work uncovered that certain types of land use—residential, commercial, and public—were positively associated with neighborhood satisfaction. In a similar way, while pedestrian-friendly settings were often perceived as positive conditions (Bramley and Power, 2009; Buys and Miller, 2012), Patterson (2004) specified that certain conditions, such as proximity to a grocery store and other services within one mile, also yielded positive effects on satisfaction. Park et al. (2016) statistically synthesized these varying outcomes from 52 previous studies and found that new urbanist principles, with the exception of proximity to transit, were likely to cause decreases in housing premiums. They argued that “people still value large lots, lower density, separation from nonconforming land uses, and secluded space with less connected streets” (pp. 9). Inconsistent results have appeared across different study areas, and the same phenomenon has occurred in stated preference studies. Yang (2008) found that higher density and mixed use were undesirable conditions in Charlotte, but in Portland they contributed to increased neighborhood satisfaction. Given these findings, new urbanism appears not to be perceived yet as a desirable planning approach by which to increase all cases of neighborhood satisfaction.

Neighborhood satisfaction often functions as an effective indicator of quality of life (Yang, 2008), but other dimensions can also contribute as valid measurements. According to Allen (1991), quality of life can be determined by personal satisfaction (by personal attributes), neighborhood satisfaction (by neighborhood attributes), and community satisfaction (by sense of community and community attributes). Theoretically, new urbanism would exert influence over sense of community by increasing chances of encounter among residents through intentional designing of public spaces. Individuals who congregate with neighbors are expected to engage or volunteer in their communities, expressing an improved sense of community (Talen, 1999) through promotion of social capital—social networks and interactions—among neighbors (Leyden, 2003). This, in turn, engenders feelings of attachment, commitment, and belonging (Chavis and Wandersman, 1990; French et al., 2013). Several studies empirically highlight the positive association between new urbanism and community satisfaction, especially in terms of sense of community. Plas and Lewis (1996) also revealed that planned communities based on neo-traditional designs were likely to induce sense of community. Additionally, Leyden (2003) and Lund (2002) found that pedestrian-oriented neighborhoods were likely to foster neighborhood interactions and sense of community. French et al. (2013) showed interesting results. In their work, not all new urbanist principles yielded positive effects on sense of community—pedestrian-friendly neighborhoods showed a strong sense of community, but high density contributed to decreases in community solidarity. Jabareen and Zilberman (2016) also found compactness, density, transportation, and design to have positive impact on sense of community in Beer Sheva, Israel, while the presence of multi-family housing units such as apartment complexes produced negative influence. Given these findings, some new urbanist designs have demonstrated the potential to improve sense of community. However, several studies on the social doctrine of new urbanism, unlike those conducted on neighborhood satisfaction, remain at the hypothetical stage, since the direct link between environmental and physical factors and sense of community remains unclear (Talen, 1999). The link is also explained more easily in terms of the non-physical conditions of neighborhoods and individuals. Physical settings can work as mediums by which to affect perception toward surrounding environments (French et al.,