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## The Relationship Between Residential Land Use Patterns and Educational Outcomes

Authors: Shannon Van Zandt, Texas A&M University; Douglas F. Wunneburger, Texas A&M University  
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In the United States, the majority of public schools rely on property tax revenue. Economically segregated housing leads to differences in school funding, making certain groups of students vulnerable to negative social conditions at school along with poorer facilities and teaching quality. This practice “provides an explicit link between school performance and residential land use patterns”. As a result, students can experience stifled aspirations, poorer employment prospects, and lower lifetime earnings.

While previous literature had treated the spatial organization of housing as fixed, Texas A&M University researchers

### Housing choices in a community directly relates to levels of school quality

Shannon Van Zandt and Douglas Wunneburger undertook a study that challenged this assumption. They examined how Texas residential land use patterns relate to educational measures for economically disadvantaged students as well as strategies that might serve to improve these land use patterns. The researchers

hypothesized that “segregated housing leads to lower levels of academic performance by low-income and minority students.”

#### METHODS

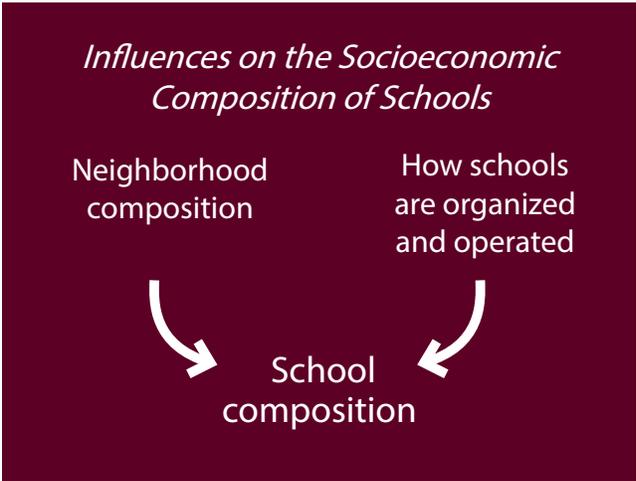
The researchers used data from the 2000 U.S. Census and the Academic Excellence Indicator System (AEIS) from the Texas Education Agency. Segregation (sorting) indices for housing value, housing type, and housing tenure were developed to measure economic segregation in Texas’s four largest metropolitan areas – Dallas, Houston, San Antonio, and Austin. The researchers used ArcGIS to reallocate census block data to correspond with elementary school attendance areas.

### “Landscapes of inequality”

A term given by researchers Glasmeier and Farrigan to describe “a sociospatial structure of domination and subordination produced by an uneven distribution of resources, particularly for schools, jobs, and neighborhood quality”

However, there are strategies to promote greater equality through reformed residential land use patterns:

- creative development approaches
  - smart growth
  - new urbanism
  - inclusionary zoning
- regulatory frameworks
  - more rigid enforcement of fair housing laws



**FINDINGS**

Van Zandt and Wunneburger’s research indicated several noteworthy findings:

- Educational outcomes for all students within a school were highly clustered, while outcomes for economically disadvantaged students were not spatially clustered. Thus, high levels of economically disadvantaged students negatively affect a school’s overall test scores; conversely, low levels of economic disadvantage are linked with higher overall levels of performance within a school.
- Neighborhood factors play an important role in educational attainment, but neighborhood choice and mobility for poor and minority families may be limited by steering by realtors, unequal access to mortgage credit, and neighbors’ hostility.
- Housing values and median household incomes were strongly related to school socioeconomic composition.
- In Texas’s metropolitan areas, spatial distribution of housing exacerbates economic segregation and the isolation of certain populations. Apartment options are particularly limited in Austin, Dallas and Houston; a significant portion of neighborhoods consist of only single-family homes. Austin in particular displays high levels of segregation.

**IMPLICATIONS FOR PRACTITIONERS**

Very few schools are engaged with local planning bodies to promote more diverse housing opportunities. As taxing entities, school districts would benefit by becoming active in the planning process. Residential land use patterns can in fact be altered through the following strategies:

- Smart growth
- New urbanist practices
- Inclusionary zoning
- More rigid enforcement of fair housing laws

Because of the state’s relaxed approach to land use policy, Texas jurisdictions may have more obstacles than more progressive states to overcome inequalities. Still, greater equality is a worthwhile aim: “[T]ogether, both land use and regulatory approaches can facilitate diverse student bodies and more equitable learning environments.”



*Spotlight on Inclusionary Zoning*

Inclusionary zoning, one of the creative development approaches that can improve equality of land patterns, requires that low- to moderate-income individuals be given a share of advantages created by new construction. For example, an allotment of affordable housing for low-income families may be a required percentage of space within a building or neighborhood.

Photo from [baltimorefuture.blogspot.com](http://baltimorefuture.blogspot.com).

**Shannon S. Van Zandt, AICP**



Director, Center for Housing and Urban Development

Program Coordinator, Master of Urban Planning

Rodney L. Dockery Professor in Housing and Homelessness

**Douglas Wunneburger**



Associate Professor

Senior Lecturer

Department of Landscape Architecture & Urban Planning