

UCLA ECONOMIC LETTER

REAL ESTATE AND THE MACROECONOMY



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Monthly condensed analyses of crucial real estate and economic issues offered by UCLA Anderson Forecast and UCLA Ziman Center for Real Estate. This letter summarizes a paper published by [American Journal of Public Health](#): "Early Child Development, Residential Crowding, and Commute Time in 8 U.S. States, 2010–2017." Its authors expand upon previous research to include the impact of overcrowding and lengthy commutes on children.

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Anti-Child Zoning

How overcrowding and long commutes impair childhood development

By [Eryn Piper Block](#), MPP; [Frederick J. Zimmerman](#), PhD; [Efen Aguilar](#), [Lisa Stanley](#), DrPH; and [Neal Halfon](#), MD, MPH

In cities across the United States, high crime and economic disinvestment are being superseded by growing gentrification, displacement of low-income populations, and rapidly increasing housing costs. Thus, understanding the relationship between child well-being and our changing urban landscape is ever more important. From birth to age 5 years, critical child development occurs for brain functioning, health and school readiness. The roles of early childhood experiences and environmental exposures and contexts on these outcomes are increasingly well recognized.

“Restrictive zoning, poor transportation planning, and stagnant wages have combined to put many households into the untenable position of having to work long hours, commute long distances, or squeeze many people into small spaces. Children have been among those whose health and well-being suffers most from these policy failures.”

By many accounts, our rapidly changing cities have not kept up with increased demand for urban living. As cities become more crowded and expensive, many families respond by moving farther from cities' urban cores to find cheaper housing in the suburbs or by living in smaller, more crowded spaces. Recent research has shown that restrictive zoning policies in major cities have resulted in longer commutes and increased crowding, which may impair child health. This study is the first, to our knowledge, to examine the impact of these two indicators of rapidly changing cities—residential crowding and extended commute times—on early child development.

ENVIRONMENTAL STRESSORS

The purpose of this article is to contribute to the investigation of relationships between individual-level child health and ecological-level changes. We hypothesized that changes to the urban landscape may have an impact on child development through the interplay among the individual, family, neighborhood, and community domains. Through the lens of the environmental stressors model, we hypothesized that long commutes and residential crowding may affect child development by increasing family and child stress. The environmental stressors model suggests that people experience stress from neighborhood characteristics such as noise, crowding, and pollution, and this stress can lead to social isolation, antisocial behavior, decreased academic performance, depression, aggression, and behavior problems in children.

Residential crowding has been linked with many adverse outcomes that reinforce the environmental stressors model, such as heightened mental distress. For children, overcrowding is linked with poor academic performance, behavioral problems in school, and respiratory problems. However, few of the studies demonstrating these adverse outcomes examined them in very young children or more comprehensive measures of early child development.

There is also strong evidence that lengthy commute times can increase stress and thus lead to adverse health and mental health outcomes. Long commute times are associated with increases in hypertension and obesity and decreases in cardiovascular fitness, stress, sleep quality, self-assessed health, and overall energy in adults. Adults with longer commute times are more likely to feel time pressure and lower life satisfaction and have less time participating in leisure activities. Although this evidence is specific to adults, children could be adversely affected by parents' long commutes: Children may miss out on high-quality parent-child interaction time when parents spend so much of the day away from home.

We hypothesized that the impacts of residential crowding (defined as households with more than 1 resident per room) and commute time on child development are more pronounced for families in low-income neighborhoods. Families in high-income neighborhoods may be protected from the hazards related to these stressors and may have had more autonomy to move on the basis of good schools and high-quality green spaces. Time scarcity is a mechanism through which commute time may adversely affect health and it is more likely that high-income individuals can use financial resources to purchase additional time—for example, by taking private vehicles to work instead of public transportation, ordering food instead of cooking, using grocery-delivery services for shopping, or hiring people to help with household cleaning.

Empirical evidence supports the notion that low-income people are especially susceptible to environmental stressors. Commute time and mental health symptoms were positively associated for women in poverty during pregnancy and postpartum but not for those in higher-income groups. For low-income families, shorter commute times are even strongly associated with higher chances of upward mobility.

We used the Early Development Instrument (EDI) as a measure of early child development. The EDI is a teacher-reported, population-health measure of child development for midyear kindergarten students with 5 domains: physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills and general knowledge. The EDI is distinct from other kindergarten-readiness measures in that it is a population-health measure instead of an individual diagnostic tool. Child scores are geocoded to homes, allowing for place-based research.

For our methods, we used a cross-sectional associational design. The unit of analysis was the census tract. The EDI population included 301,792 children in kindergarten and occasionally preschool in 16 states and Washington, D.C.

RESULTS: PUBLIC HEALTH IMPLICATIONS

Although the magnitude of these effects was not large—on the order of a couple of percentage points for every standard-deviation change in either commute time or crowding—at the population level these changes lead to meaningful effects. The vast majority of the nation’s poor children live in and around cities, in urban and suburban areas—more than 10 million children, according to U.S. Census data for 2016. Given that an estimated half of all poor children are not ready to start school at age 5 years, there are some 5 million urban poor children who suffer from readiness deficits. The estimates presented here suggest that the roughly 5% increased risk associated with crowding and long commutes affects the school readiness of nearly 200,000 children a year.

Both crowding and commute times are under the control—indirect though it is— of city planners, city councils, mayors, and the citizens that elect and appoint them. In recent decades, zoning that restricts the building of new homes, poor transportation planning, and stagnant wages have combined to put many households into the untenable position of having to work long hours, commute long distances, or squeeze many people into small spaces. Children have been among those whose health and well-being suffers most from these policy failures. This problem is especially pronounced for high-poverty neighborhoods. Our findings emphasize the need for multi-sectoral integration and collaboration. Children’s issues should not just remain in discussions of child welfare, the juvenile justice system, the foster care system, and preschools. Transportation, city planning, and other ecosystem issues are also children’s issues, and, thus, it is important for child advocates and researchers to be at the table during a wide variety of policy discussions.

Even in more affluent neighborhoods, crowding was associated with poor child development. The built environment, planning policy, and zoning all seem to have an influence on how children develop. The public health sector should work with advocates in the economic development, urban planning, and transportation planning sectors to take actions that improve the lives of low-income children.

Many cities and counties are already using the Early Development Index. Expanding its use and tracking child wellbeing with the EDI may allow local governments to gain a better sense of the real danger that inadequate development poses to children.

