## **Evolution of Racial Diversity in Newly Built American Housing Subdivisions**

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## **ABSTRACT**

The United States is racially diverse as a whole but segregated at the local level. The local segregation has been previously studied at the level of metropolitan areas using demographic data aggregated to census tracts. Limitations in spatial resolution and yearto-year compatibility of census tracts make it impossible to study evolution of racial diversity at the fundamental local level of individual neighborhoods. Using recently developed (<a href="http://sil.uc.edu/webapps/socscape\_usa/">http://sil.uc.edu/webapps/socscape\_usa/</a>) 30 m resolution, year-to-year compatible demographic grids for 1990, 2000, and 2010 we tracked 2000-2010 evolution of racial diversity in housing subdivisions built between 1990 and 2000. First, we identified all 3,382 "new" subdivisions across the entire U.S. as urbanized areas present in the 2000 grid but absent in the 1990 grid. For each new subdivision we also identified its "neighborhood" – a set of pre-1990 subdivisions in the radius of 4 km to serve as a control sample: altogether there were 48.976 such control subdivisions. All subdivisions (new and control) are classified into one of three categories of racial diversity: low (L), medium (M), and high (H) based on the scheme developed in our previous work and using data from the 2000 grid. By comparing diversity category of newly built subdivisions with prevailing category of their pre-1990 neighbors we found that 24% of newly built subdivisions start as more diverse than their older surroundings, 11% are less diverse, and 65% conform to a diversity level of their surroundings.

Next we re-evaluated racial diversity of 1990-2000-built subdivisions and their older surroundings after 10 years by reclassifying them into diversity categories using the 2010 grid. We found that the majority (78%) of 1990-2000-built subdivisions maintained their diversity category after 10 years, 19% increased their diversity, while 3% decreased their diversity. Over the same time 68% of their older surroundings in the control set also maintained their diversity category, while 27% increased and 5% decreased their diversity. More in depth look reveals that the greatest increase in diversity within a set of control subdivisions is associated with those 1990-2000-built subdivisions which increased their diversity in the 2000-2010 period. Control subdivisions associated with 1990-2000-build subdivisions which remained steady or decreased their diversity experiences smaller increases.

Results of this comprehensive study are interpreted as follows. When a new housing subdivision is built its residents tend to be statistically more racially diverse than those in neighboring subdivisions. This is likely due to shifting social attitudes, changing income stratification, increasing minority population, and existence of anti-discriminatory laws. Over the 10 years period the diversity gap between the newly built subdivision and its older neighbors narrows, especially in the areas of the strongest overall diversity increase. If this trend continue, American suburbia (if not its inner cities) will become locally diverse in the next few decades.