Table 1. Neighborhood change sequence analysis process.

Methodology	Purpose	Input	Method	Output
1. Develop cross- sectional typologies for census data.	Using a series of socioeconomic, housing, and demographic indicators, develop a typology of neighborhoods within Cook County.	Brown S4 LTDB data for each decade 1970– 2010 at the census tract level.	Standardize variables by z score for each year to control for different measurement scales. Use hierarchical cluster analysis to identify neighborhood types.	Seven neighborhood types assigned to each census tract for each decade.
2. Create longitudinal sequences for each neighborhood and measure sequence similarity.	For each neighborhood, construct a longitudinal sequence of neighborhood types by decade to describe the neighborhood's change trajectory.	Census tracts with neighborhood type for each decade, 1970– 2010.	Use optimal matching to identify similar sequence transitions for neighborhoods.	Individual sequences for each census tract.
3. Cluster sequences.	Using the sequences identified in step 2, develop a typology of sequences using clustering techniques.	Individual sequences for each census tract	Use hierarchical cluster analysis to identify similar sequence types.	Eight sequence types, with one sequence assigned to each census tract.

Working Class

The working-class cluster is characterized by a mix of blue-collar neighborhoods, with some transitioning between 2000 and 2010 to blue-collar immigrant and inner-ring suburban neighborhood types.

Gentrifying

Gentrifying neighborhoods are predominantly white collar, but also illustrate the transition of formerly blue-collar and struggling neighborhoods to white-collar neighborhoods.

Older Suburban

The older suburban transition sequence is characterized by inner-ring suburban neighborhoods with some transition to blue-collar and struggling neighborhood types.

Diversifying Suburban

Diversifying suburban neighborhoods were predominantly newer suburban and affluent suburban neighborhoods that are transitioning to look more like inner-ring suburban and blue-collar neighborhoods.

Persistently Struggling

Persistently struggling neighborhoods contain a mix of struggling and blue-collar neighborhood types. Unlike other sequences, this sequence shows low levels of transition to other sequence types.

Affluent Suburban

Affluent suburban trajectories are characterized by stability of the affluent suburban neighborhood type. In 2000 and 2010, some of these neighborhoods transitioned to the inner-ring suburban neighborhood type; however, this sequence is very stable compared with others.

Ethnic Enclave

The ethnic enclave transition type features a mix of blue-collar immigrant neighborhoods, with an increasing share of neighborhoods transitioning to blue-collar and white-collar neighborhoods.

Suburban Developing

The suburban developing transition type features newer suburban neighborhoods that are largely stable. In 2010, some of these neighborhoods transition from newer suburban to inner-ring suburban, blue-collar, and white-collar neighborhoods, suggesting a combination of demographic shifts along with new development.

