

SUPPLEMENTAL FILE 1

Variables used in cluster analysis

We calculated the count of food outlets and PA facilities within each neighborhood (per km²) at each exam year using data from Dun & Bradstreet (D&B).[1] We classified food outlets and PA facilities according to 8-digit Standard Industrial Classification (SIC) codes, except in 1986 when only 4-digit codes were available, which were used along with matched business names. We used data from the Census Transportation Planning Package to calculate the distance from participants' residence to the nearest employment center centroid at each exam year using data in years 1990 (exam years 0, 7, 10), 2000, 2005, and 2010 (exam years 15, 20, and 25, respectively). We defined employment centers as any contiguous group of Traffic Analysis Zones with a minimum of 10 workers per acre and 10,000 total workers for Birmingham and Minneapolis, and 12 workers per acre and 12,000 total workers for Chicago and Oakland.[2] We extracted data from StreetMap Pro datasets to create variables related to road types and lengths for each neighborhood in 1999 (exam years 0, 7, 10, 15), 2005 and 2010 (exam years 20 and 25, respectively). These variables included intersection density, number of links, number of cul-de-sacs, beta index, total road length (km), and percentage of residential roads. We also collected total park area (km²) using current and historic geospatial data at each exam year.[3]

Prediction of home price index (HPI) values

The variables used to predict HPI values included the cost of living index; the Consumer Price Index; percentage of population with less than high school education at age 25; percentage of population with at least a college degree at age 25; median household income; percentage of population with household income less than 150% of federal poverty level; percentage of non-Hispanic white population; percentage of foreign-born population; percentage of vacant housing unit; percentage of housing units with a mortgage, home equity loan, or similar debts; population density; and exam year.

REFERENCES

1. Dun & Bradstreet, Inc. D&B - Dun's Market Identifiers. 2013. Access Date: Available from: <http://library.dialog.com/bluesheets/pdf/bl0516.pdf>.
2. Cho EJ, Rodriguez D, and Song Y. The role of employment subcenters in residential location decisions. *Journal of Transport and Land Use* 2008; 1.
3. Hirsch JA, et al. Obtaining longitudinal built environment data retrospectively across 25 years in four US cities. *Frontiers in Public Health* 2016; 4.